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THE CANADA
EDUCATIONAL MONTHLY
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MAY-JUNE, 1882.

THE NATURAL SCIENCES IN RELATION TO THE WORK OF
HIGHER SCHOOLS.

BY A. M'GILL, B.A., SCIENCE MASTER, OTTAWA COLLEGIATE INSTITUTE.

“OTHER things being equal,” said Mr. Saunders, “I apprehend that the generation that travels sixty miles an hour is at least five times as civilized as the generation that travels only twelve.”

“But the other things are *not* equal,” said Mr. Herbert; “and the other things, by which I suppose you mean all that is really sacred in the life of man, have been banished or buried by the very things which we boast of as our civilization.”

“That is our own fault,” said Mr. Saunders, “not the fault of civilization.”

“Not so,” said Mr. Herbert; “bring up a boy to do nothing for himself—make everything easy for him—to use your own expression, subdue matter for him, and that boy will never be able to subdue anything for himself. He will be weak in body and a coward in soul.”

The passage quoted from Mallock's

“New Republic” is part of a conversation between a Realist and an Idealist, and is made to tell against the champion of Materialism. Whatever besides matter and force—and I employ these terms in the sense in which they are accepted by science—can claim to belong to the region of the “existing,” it is not for us to consider here. That an anatomist must study more than bone and muscle before he can claim to be a *cultured man*, few will deny; and so with every department of science. But I am prepared to say, that as a means of developing that mental self-reliance and power of independent investigation and thought, without which true culture in any direction is impossible, the practical study of the Natural Sciences will be found to hold an important place. We are too apt to forget that the all-important duty of the teacher is *to educate* rather than *to instruct*. The teacher who is fully

alive to the importance of the position he holds, who is himself instructed to see clearly the relation in which he stands to his pupils, to the *thinkers* of the next generation, to its *thought*, its *refinement*, its *culture*, its *civilization*—in a word, to the *progress* of his race. will not fail *both* to educate and to instruct. But we are so hampered at this stage of the world's progress by rules and regulations, by written examinations, by forces which do not discriminate between the true teacher and the mere grinder, that there is a strong temptation in the best of us to sink the individuality, the personal influence which we ought to exercise over our pupils, and the personal interest we ought to take in them, and to take our places along with the great bulk of the profession as mere explainers and questioners. It is so much easier, and, in the light of a coming examination, so much more satisfactory, to adopt some textbook once for all, and set ourselves down to the task of helping our classes slavishly to memorize the very phraseology of some most concise compiler. We leave our pupils as little to think out for themselves as possible. A race of boys and girls has now grown up which actually expects its teachers to do the bulk of its thinking for it. You have only to consider the classes, say in Arithmetic, which you meet day by day, in order to verify what I have said. You know that a problem deviating in the slightest detail from such as have been already explained is a mountain over which not one per cent. of your pupils will climb. You must yourself explain it fully, and thank fortune if your class is next day able to solve one differing from it only by the substitution of new values. And do we not see already, too many proofs of the truth of Mr. Herbert's statement, "Bring up a boy to do nothing for himself, make everything easy for him, subdue matter for

him, and that boy will grow up weak in body and a coward in soul, never able to subdue anything for himself?" That a time will ultimately come when strength and courage will no longer be wanted, is what few of us are ready to grant as even probable; that it has not yet arrived, and is not likely to arrive for many generations, we are all agreed. Strength both of body and mind; physical and mental hardihood; courage to undertake and ability to carry on the struggle with ignorance and vice, are in as high a degree necessary and desirable in the nineteenth century as in any earlier one. And it is given to the teacher to wield no small influence on future progress through the relation in which he stands to the next generation of thinkers and workers. Would that our teachers were themselves fully alive to the importance of what is their function in the great *Humanity!* that they might themselves first be fully aware of what nineteenth century civilization, advancement, culture, really are, and then keenly alive to the importance of helping their pupils to a full comprehension of the age in which they live, instead of being, as we too often find them, only distinguishable from the commonest kitchen-maids and farm hands by a scanty furnishing of the elements of arithmetic, *formal* grammar, and the merest trifle of history and English literature, such as can be crammed in a year's attendance at any ordinary school. Our teachers ought to represent the highest culture, refinement and scholarship of the age. And I am not now speaking of the few who are to occupy leading and foremost positions, but, Quixotic as the idea may appear, I am of opinion that our Public School Teachers throughout the length and breadth of the land ought to illustrate in their manners, their conversation, and in all their intercourse with their pupils, the re-

sults of an education which they have themselves received; the manner, dress, language, style and presence of the teacher should be a constant model for his class.

How often do we find the Queen's English slaughtered by those who are looked upon as good teachers! How often do we find the proprieties violated through the ignorance of those who profess to be the instructors of our youth!

How is a man to inspire his pupils with an appreciative love for any department of literature, art or science, who has never entered into the spirit of the thing himself? He may stand and point to the temple, but he has never entered himself; has never sacrificed at the altar, and knows nothing of the devotee's joy. "With a clown's broad back turned broadly to the glory of the stars, he has talked to his class of Orion and the Pleiades, of 'the charioteer and starry gemini,' " with many other constellations which are only *hard names* to him, and, in consequence, are rubbish to his pupils; and he wonders at the want of interest his class displays.

But you will ask what all this has to do with the relation of science to school work. And I answer, "*A great deal.*" For note, that so long as such teachers make up, as they now do, by far the larger portion of the guild, just so long will cramming and book-work produce the evil effects they do at the present time. It is so easy and so satisfactory, this working with a text-book. The lesson for the day is *very definite*. There is not the slightest difficulty in saying whether it has been prepared or not. This is a great comfort to the teacher, and it is at least recognized by the pupil as a thing to be thankful for. He may not *understand* his work, but, thank goodness, he can still *do* it very well. Let us inquire how all this is brought about.

We constantly hear of the inquisitiveness of childhood. How is it that when our boys and girls have been a few years at school we find so little of this natural inquisitiveness left in them? Rare, indeed, is the instance in which a boy or girl of twelve is found carrying on an original investigation in any direction. Is it that, for them, the world has nothing unexplored? or is it not that the spirit of curiosity—the genius that prompts to investigation—has been crushed out? For what is there in the first twelve years of a child's life to keep alive this spirit of curiosity? His first attempts to understand the mechanical structure of his toys by a process of destructive anatomy, brings him into trouble with the powers that be. Later on he goes to school, and books are put into his hands; a certain number of papers assigned for a lesson. This lesson—descriptive and explanatory, or didactic, as the case may be—must be memorized under threat of the teacher's vengeance.

Before school life began, his troublesome questions were put off by the advice, "Wait till you are old enough to go to school, and then you will understand all that." And now that he is at school, the desire to investigate being already very much dulled through want of use, he is told to attend to such a lesson to-day, and by-and-by the particular thing he wants to know will become plain to him. And so, day by day and year by year, the monotonous routine of book work goes on; an everlasting reading and writing and answering of questions, until all his mental activity—except in the memorizing of task work—is completely gone, and our boys and girls at twelve years of age are fit for nothing but drudges. The questions that their childhood asked have never been answered; the whole subject is now forgotten. They are never now troubled or troublesome

with the "persistent questionings of things unseen." The wearied brain—wearied with inaction except in that direction in which it most resembles the brain of lower animals, viz., memory—never suggests anything new. The teacher must suggest, and even the response is not the result of the pupil's thought or work. A book of reference is consulted overnight, and in the morning a set of words, conveying no idea to the pupil, is accepted by the teacher as a satisfactory answer to his question.

If I were asked what is the keenest pleasure that the human spirit can know, I would say—It is what Columbus felt when, after years of effort steadily directed towards the solving of a problem which antecedent periods of study had suggested to him, he perceives at last the shore of the New World so often seen in dreams before; what Leverrier felt when he received word from Berlin that the planet Neptune, till then unseen, had been discovered in the very spot where months of toilsome calculation had assured him it lay; in short, the pleasure experienced as a result of work done by ourselves, leading to a conclusion which increases the sum of our knowledge. The pleasure of the discoverer is perhaps the keenest and purest which the human heart may know. 'Tis a noble joy, since it is a step in the direction of the comprehension of God's thought expressed in the universe. How little of this joy do our pupils feel! Let us analyze the motives which prompt their work.

1st. The certainty that if work be not done to-day, either corporal punishment will be the result, or detention after hours till the work be done—which is only a corporal punishment of a worse kind, since body and mind are together involved in it.

2nd. The desire to please parent or teacher.

3rd. The desire to win good places in the class.

4th. The desire to win a prize.

5th. The disgrace of occupying a low position in the school.

6th. With slow pupils, the consciousness that a familiarity with textbook work will count in the race for a teacher's certificate, a college entrance examination, or something of the kind.

Now, look over that list again, and see which of these motives you could select as a truly noble one. To which of them can the epithet "grand" be applied? Is not the whole thing contemptible? Does it not awake the bitterest scorn in the mind of any cultivated person to have to grant the list practically complete?

Where is the "Amor discendi?" Where the "Divinus furor?" Where the thirst of knowledge for its own sake? Where the adult analogue of that curiosity which was so powerful an incentive to childish endeavour? If you find one in every hundred of our boys and girls, of twelve years, who shows a genuine pleasure in following up an investigation, in any direction at all, from no other motive than the pleasure of the chase, you are more fortunate in your search than I have been. And the reason is not far to seek. If a limb be never exercised it must grow feeble and become atrophied. No child is born without a thirst for knowledge; and this curiosity which is so characteristic of children is only another name for the "Amor discendi." But no care is taken to cultivate it—no pains to keep it alive. It is left unsatisfied, while the troublesome questioner is on his parents' hands to nourish itself with the promise of a future satisfaction; and when in the fulness of time we hand him over to the professional teacher, the already weakened impulse is quickly annihilated by a regimen of

text-book diet, warranted to kill out every trace of originality.

For what are our text-books but digests—methodical arrangements of the results of other people's labours? And the business of the schoolboy is not to investigate for himself—which would entail too great expenditure of time, forsooth!—but to commit to memory the results of other people's work; to be crammed, in short, not educated.

Away with it! Is it not as if we were to say to our boys at play, "Throw down your ball and bat; here is a synopsis of all the games of cricket played for the last hundred years; commit these lists to memory, for you'll never be able to make such scores yourselves."

The results may be intrinsically valuable, but this is the least important consideration after all. We *must not* kill the spirit of inquiry; we can't afford to do it; it is the most valuable trait of a boy's character to which the teacher can appeal. No scholar, not of the Admirable Crichton stamp, but possessed it; no worker ever increased the sum of human knowledge without it.

We want to know why the preterite of some verbs ends in "*ed*." Well, we refer to our text-book. We want to know why the verb "to be" is so very irregular. Again we turn up our Grammar. We want to know what becomes of the sun when he sets at night, and why his rays fall upon us in a more nearly vertical direction in summer than in winter: *i.e.*, our teacher has asked us these questions—for although year after year the same phenomena are repeated, our habits of observation are so little developed that they would forever have escaped us—and we must find an answer. Again we turn up a book of reference, memorize a formula of words, and our teacher is satisfied. And we too are satisfied, though not a whit wiser

than when the question was first suggested to us, for when we *know* and when we *know not* has long ago ceased to be a matter of concern to us. Yet the sun is locking down at us day by day. He performs those very motions which we have described in words that conveyed no meaning to us; he performs those very movements before our eyes which are blind to the whole magnificent panorama we have never been trained to see.

You who are teachers, if you have yourselves thought on the matter, and haven't tamely accepted your position as "Gerund grinders"—you, I say, know the truth of what I have affirmed. My own experience and observation have again and again compelled me to acknowledge its truth. Parrots we have by the dozen, book-devourers by the score; but *students*, lovers of their work and intelligent workers, we have practically none. Why, in our highest forms it is not knowledge and more of it that our pupils want; they are afraid of it. They want the *concentrated essence* only—they want the *index*, not the *book*. If you attempt to explain by actual demonstration the movements of the earth and moon in the zodiac, they will exclaim: "Oh, we know that after Aries comes Taurus, etc. We don't care to recognize Aries, Taurus or Gemini. We don't care to observe the moon's place. We know as much about it as would count at an examination." And so these poor dupes go on, deceiving and being deceived—deceiving examiners into imagining they have some knowledge of what they write about, ultimately deceiving themselves into believing the falsehood.

The mistake we make, in my opinion, is just this: We think it our duty to furnish our scholars' minds with facts, with positive knowledge, to the utmost possible extent, mak-

ing it of no importance at all, or of a very secondary importance at the best, to have the mind itself trained to reason, to investigation, to independent judgment. Why is not this, as if, in order to secure the physical growth and well-being of our children, we were to stuff them with the strongest food and compel them to be always eating? The only difference is that in the latter case disease and death come speedily, and in such form that the dullest observer must recognize them; in the former, mental disease and mental coma and death result as surely, but more slowly, and are only observable by such as have eyes to see. If the inherent love of investigation which prompts every child of ordinary intelligence to interrogate its nurse and its parents—to analyze its toys, and to put those endless questions which make children so troublesome to their elders—if this spirit of inquiry is to be cultivated, so that it shall keep the brain awake and active through the whole school-life and to old age, then we must give it employment in our boys and girls; we must furnish them with practice; we must do this systematically and constantly. Have you ever noted the difference in interest which different children take in working out enigmas, problems, rebuses, etc.? You can safely infer the mental activity of a boy by the amount of interest he takes in such matters, just as you can gauge his mind-culture by his success in obtaining correct solutions. Substitute for your enigmas such problems as shall have a practical value when solved, and you have the most important conditions to be fulfilled by an instrument for mental training. The study of the natural sciences furnishes the very thing wanted—that is, *the study by direct reference to and questioning of nature herself*. No text-book work here. A

laboratory is wanted, to be sure, but every roadside, every ditch, every day and night of the year furnish you a laboratory. It is better if you have a room conveniently furnished—but any ordinary school room is laboratory enough. If botany be the particular branch of science selected—and in my judgment, especially for junior classes and in country schools, it is to be preferred to any other—then every tree and shrub and herb furnishes you material. The observing eye, the skilful hand, the thinking brain, are all that are needed to make the study, under the guidance of a teacher himself in love with and conversant with his subject, a sure source of incalculable profit and intense delight. The teacher who describes a flower for his class makes a great mistake, and totally frustrates the whole end of the study, which is the cultivation of the powers of observation, memory, and comparison (judgment) on the part of the pupil, by inducing him to observe and compare for himself. Chemistry, natural history, any department of science, in short, will do instead of botany, should facilities offer; but the last named have the difficulty of requiring more elaborate arrangements for work than botany. Eclectic work may be preferred: now a problem from botany, now one from chemistry, now from physics of heat, light, etc. Very good so long as the work is done, and intelligently done—not by you, but by your class. All right. But you will ask where time is to be found for this work, with our already too crowded curriculum. Well, the answer is simply that until the curriculum be revised, time can't be found for it. But does not our Limit Table exact a great deal too much in many departments? It seems most ridiculous to me that, for instance, English grammar should be taught in our Public Schools for so many years in preparation for High School entrance, and in the High

Schools should still form so great a part of the work of all the forms of the common school. What is there in formal grammar—I'm not speaking of English language and literature—to make it so very important? Does your experience go to prove that an acquaintance with technical grammar, analysis and parsing, on which so many years are spent, is a guarantee for correct speaking and writing on the part of your pupils? Such is not mine, and my experience extends over a period of fifteen years. Nay, more, give me a boy or girl of fifteen, who has been taught to use his or her brains with delight and to some purpose, but who knows nothing of English grammar from a text book, and who has never analyzed a single sentence, and I will undertake to teach such an one all the technical grammar required for our Intermediate within the space of three months, though it be such work as most spend five or six years over.

Nor am I speaking at random, for I have done this very thing. Not three years since I had the pleasure of assisting an intelligent young lady, who, however, knew nothing whatever of grammar, algebra, or Euclid, and very little arithmetic, in preparing for her Intermediate, and in less than nine months she was able to take a grade "B" at the Intermediate of July, 1880. And, after all, what is the reading of two books of Euclid with half a hundred deductions to any one who has some capacity for connected and logical thought? It is only the work of two or three weeks at most. Yet, by beginning at the wrong end, packing the mind with knowledge which lies on it like an incubus, instead of educating that mind to coherent and rational and pleasure-giving activity, we make it the work of years, and then it is not well done.

Have you ever found even the most intelligent of your pupils voluntarily

tasking himself to add to his store of grammatical knowledge beyond the limits assigned for class work? My own experience has shown nothing of the kind; and I believe that the experience of most teachers will corroborate mine. I have found some boys and girls take so great an interest in the solving of arithmetical and algebraical problems, that they would work beyond the lesson limit; and I have known McLellan and Kirkland's collection properly appreciated in a few instances, and even used as we use chess or backgammon, for pleasure or relaxation. And such cases, rare though they be, I take to establish that the same solving of difficulties and disentangling of knotty questions, which prove sources of delight to childhood, should be found sources of pleasure to older boys and girls. No sight can be a sadder one to me than that which I am compelled to witness every day—the sight of boys and girls in whom the spirit of inquiry is, to all appearance, utterly dead; who cannot be roused to take any appreciative interest—that is, any real interest—in the work they do. A spurious interest they can be made to take, certainly. Let them know that a promotion or a prize depends upon certain work, and they will do it—even with alacrity. But the interest is in the prize, not in the work; and there is, in consequence, no desire to comprehend and appreciate this further than may be believed necessary to answer the teacher's questions.

Now, it seems to me that work which does not and cannot be made to interest children of a given age, is unsuited for them at that age. Work cannot be well done, and cannot be productive of the maximum benefit to the student, unless his heart be in it—unless he be in love with it for its own sake. There is no difficulty in interesting an intelligent boy or girl in any department of study suited for our

elementary school course, provided that you take your pupil before that "mortal coldness" settles down, which is sure to result from a lengthened devotion to drudge-work. The conditions necessary are—first, that the subject itself be something within his comprehension; second, that the teacher be himself perfectly conversant with it, and fully alive to the needs of his pupil and the importance of his own relation towards him.

The irregularities of English etymology belong to a period in the life of a student when a study of English literature has brought him face to face with the earlier, and now perhaps obsolete, forms of words. The absurdity of expecting a child who has scarcely heard of Chaucer or Robert of Gloucester, and certainly never read a verse of the Canterbury Tales, or a word of the Saxon Chronicle—the absurdity, I say, of expecting such a child to be interested in the etymology of our own so-called "adjective pronouns" and "relative pronouns," ought to be sufficiently apparent.

Yet are we not a whit less foolish in supposing that botany or any other

science taught from a text-book bristling with technical terms can interest our pupils. We must bring them face to face with nature herself; make them observers; help them skilfully, but not obtrusively; taking the greatest care to avoid any attempt to *see for* them, or to *think for* them. The true teacher stands above his pupils. He sees far beyond the range of their vision; and where a cloudy haze covers their horizon, clear landscapes open to his sight. Yet is it not his place to describe fully what he sees, for this can never become real to his pupils till they see it for themselves. His endeavour is to direct their gaze to where the nearest treasures lie which are yet unobserved by them. These seen and thought over, and compared with the already known, the organs of sight are strengthened for a still more distant view; and so on, till at last teacher and pupils together revel in delightful study of the outermost regions of the known, and vie with each other, and with educated men the whole world over, in earnest endeavour to see farther and farther into the mystery of the universes of mind and matter.

THE MOTHER.—Love may make the conscientious mother anxious to train her children's inner nature aright, to cultivate their powers, to form good habits, to secure their truthfulness and purity, to build up their moral integrity, to arouse their generous impulses, to teach them the art of self-government; but love alone will not open up to her the laws of the mind and heart, and the principles which govern, influence, and regulate motives. Not only should she have received a "higher" education, but the very highest, including not only mental drill and discipline, but an indoctrination into the laws of life, physical, mental, moral, and social. When these come to be studied as they de-

serve, a revolution of opinion will take place in regard to the relative importance of the various duties of family life. Much that is now made paramount will then be held subordinate, and much that is now left to the chance of leisure moments will then occupy the highest place.

We all need the power of doing promptly and energetically hard and disagreeable things—things that interfere with our ease and comfort, that balk our desires, that trouble our sensibilities, that are hostile to our tastes. That such things are often needful, wise and best, is admitted by all; but the strength of character that can do them quietly but firmly is not so universal.

A BOY'S BOOKS, THEN AND NOW—VI.

BY HENRY SCADDING, D.D., TORONTO.

(Continued from page 17.)

THE DELPHIN CLASSICS.

IN our old District Grammar School at York, *hodie* Toronto, a Delphin edition of any Latin author always drew to itself a peculiar, almost a superstitious regard. It was vaguely supposed, quite without reason, I am sure, in most cases, to give its possessor a special advantage; and the class-companion in whose hands it was seen, was eyed somewhat enviously. But it was not often that Delphin classics were found amongst us. When one did appear, it was probably a waif from the early school-days of a father or grandfather, routed out from a pile of half-forgotten volumes in some out-of-the-way corner, to meet the sudden necessity of a son or grandson. The limited stock of school-books on the shelves of the Messrs. Lesslie and Sons, the only booksellers of the place, would sometimes run out, in mid-winter perhaps, or at some other inopportune time; and a Cæsar, Sallust, or Virgil, in the common shape and style, suited to the rough handling of the school-boy, could not be procured, though urgently needed. Then the dust-covered débris of an old settler's home here and there would be re-examined, and a Delphin has been known to turn up, which was immediately put to use by a young school-boy scion of the family as best he could, quickly finding, however, that an edition less pretentious was much to be preferred for his purpose, both on account of

its greater portability, and also on account of its freedom from a mass of matter which, while claiming to be a help, was only an embarrassment to him in his then condition of knowledge.

When I first became the owner of a Delphin classic, I remember I felt rather proud. It was a Virgil given me by an old friend and schoolfellow, George Dupont Wells, son of Col. Wells, of Davenport House, whence our Davenport Hill and Davenport Station have their names. Early biassed in regard to this particular edition of the Latin writers, and somewhat blindly so, too, as will also, no doubt, be seen, I seldom failed, at a later period, when passing a book-stall or other chance assemblage of promiscuous literature, to recognize quickly a volume of that series, and to secure it, when it was to be had for a trifling sum. This will account for the accumulation of eight or nine Delphin specimens in my collection of a "Boy's Books;" and it is a short survey of these, or rather of the prefaces, epistles-dedicatory, and editorial introductions to these, that I now present, which I hope may have a certain value with the student of educational progress amongst us. As in the brief reviews and descriptions of books already laid before you in these papers, so again now, I make no pretension to new discoveries. But I claim originality and independence in my treatment of the subject, as I do not remember ever seeing an account

given of the English classical educational method, in its early stage, with a catena of illustrations directly drawn from a collection of the actual manuals and editions used at the time, by the teachers and learners of the period referred to.

I purpose to explain (1) What the Delphin classics were; (2) Who the personage was for whom, in the first instance, the series was prepared; (3) Who the scholars and others were who either suggested or took part in their preparation; and (4) to give some samples of what they say of themselves in their dedicatory epistles and prefaces.

I. *What the Delphin classics were.*
—The Delphin classics were editions of the principal Latin writers, expressly prepared for the Prince Royal of France in the time of Louis XIV. The eldest son of the King of France, from A.D. 1343 down to 1830, was, as you know, styled the Dauphin, in Latin *Delphinus*, i.e., Dolphin, the fish so named being the crest or else a prominent part of the armorial bearings of the prince, just as the three ostrich plumes are with us the familiar cognizance of the Prince of Wales. In 1343, Humbert II., the liege lord of the Province of Dauphiné, along the left bank of the Rhone, was the cause of the death of his only child, by letting him fall from a window in his castle, whilst playing with him. In his remorse, he decided to sell his principality and betake himself to the monastic life. He disposed of Dauphiné, therefore, to King Philip V. of France for one hundred thousand gold florins, on condition that the Province should not be absolutely merged in the French kingdom, but always kept as a distinct appanage of the eldest son of the King, who should be regarded as its feudal lord, and be styled, as Humbert and his predecessor had been, the Dauphin, from the charge of a Dolphin in his shield of

arms. And this was accordingly done, with the consent of the Emperor of Germany, Humbert's suzerain.

This name, Dauphin, Dolphin, gave rise, of course, to puns and conceits among the minstrels and heraldic artists. "Pucelle or puzzel, Dolphin or dog-fish," Shakespeare puts into the mouth of Talbot, in 1 Hen. VI. i. 5, and again in All's Well, ii. 3; in "Why, your dolphin is not lustier," the context shews that a play is intended on the title of the French king's eldest son; whence we also incidentally gather that in Shakespeare's time, to the English ear, Dauphin and Dolphin were identical in sound, the *l* in the latter word not being heard. In the Numismatics, too, of the time; in the fine historic medals struck by authority, in France, on every important occasion, and in books on that subject, dolphins, of course, abound, represented in the usual conventional way.

Now, for the Grand Dauphin of the Grand Monarque of France, Louis XIV., it was determined that the common saying, "there is no royal road to learning," should be disproved. For him a royal road was to be "built." The hills were to be levelled; the valleys raised; rough places to be made smooth, and crooked paths straight, along the route which was to be travelled by him, at least so far as the principal standard Latin writers were concerned. If not everywhere strewn with flowers, the whole way was to be made as agreeable and as direct as possible. The Delphin classics, accordingly, will be found to consist of the texts of the chief Latin authors, with an *explicatio* or running comment at the side of each page; while below, in double columns, notes are subjoined, on every word and expression requiring elucidation. A preface or dedicatory epistle, by the editor, generally precedes, with a life of the author; and at the end of each volume

there is always a very minute verbal index. The superiority of the series was expected to arise, first, from the special aid supplied by the *explicatio* at the side of each page, which was intended to give the exact sense of the text, but in other and clearer words. Secondly, from the notes, in which utility alone was considered, and all ostentation of wide reading and rhetoric eschewed. Thirdly, from the indexes, which were unusually rich and full. The theory of the Delphin scholiasts was excellent, but in carrying it into effect they made one mistake, which you yourselves will presently discern. My specimens of the Delphin classics here shewn are all in the octavo form. Their appearance would be much more imposing and magnificent if we had them before us in the quarto shape, as they were originally issued from the royal printing presses by order of the king, for the use of the royal pupil. Sets of the quarto Delphins are now rare even in France, and fetch a large price whenever they appear in the market. In 1792 a set bound in Russia leather was sold in Paris for 3,250 French livres. At the present bibliomaniacal period, the sum realized would be larger. The whole set consists, I believe, of sixty-five volumes. An edition in octavo subsequently appeared in Paris, and it is this edition which the English publishers have reproduced. In the series was also included Pierre Danet's *Dictionarium Antiquitatum Romanarum et Græcarum in usum Delphini*, in two volumes quarto.

II. *The personage for whom the series was prepared.*—As to the royal youth for whom this elaborate apparatus was contrived for mastering the contents of the Latin authors, his name was Louis, and his birth, on the 1st of November, 1661, is commemorated on a medal figured in the *Medailles sur les principaux Evénements du*

Regne de Louis le Grand, avec des Explications historiques, par l'Académie Royale des Medailles et des Inscriptions. À Paris: d'Imprimerie Royale, 1702.

The medal is inscribed *Natalis Delphini*, "the birthday of the Dauphin." On its reverse is a winged figure with a babe in its arms, encircled with the words, "*Felix Galliarum Genius.*"

This Dauphin never came to the throne, although he lived to be the father of three sons. Neither did any one of these three sons reign; but the eldest surviving son of one of them did, as Louis XV.

In the Numismatic series just named, the marriage in 1680 of our Dauphin, at the age of nineteen, to Anna Maria Christina of Bavaria, is commemorated. The medal shews on the reverse the heads of himself and his bride, posées en regard, as the French phrase is, *i.e.*, face to face; "cooing and billing, like Philip and Mary on a shilling," as Butler speaks. Then in 1682 a medal follows, celebrating the birth of a son to the young princely couple; the legend is *Ludovicus, Dux Burgundiæ, Ludovici Delphini Filius, Ludovici Magni Nepos*, with the addition *Nova Spes Imperii*. In 1683 another medal follows, struck for a second son, *Philippus, Dux Andegarvensis [duc d'Angers]*, with the legend *Æternitas Imperii Gallici*; and once more, in 1686, there is a like commemoration of a third son, *Carolus dux Bituricensis [duc de Berry]*, surrounded by the inscription, *Felicitas Domûs Augustæ*. I happen to have in my cabinet a contemporary bronze medal of the Louis XIV. series, which I produce. On the obverse we see a fine characteristic portrait of Louis XIV., encircled by the epigraph *Ludovicus Magnus*; while on the reverse we have a portrait of our Dauphin, whom the artist has made the *alter idem* of his father, with the heads

of his three sons below; all with childish countenances, and long-flowing hair after the style of the blood royal of France.

Our Dauphin was thus early initiated in family cares, and probably gave little heed to classical matters after the dismissal of his tutors. In 1687 he is sent forth by his father to receive "his baptism of fire" (to use Louis Napoleon's words in regard to his ill-fated son), on a real battle-field; and he was actively engaged in the campaigns which followed the revocation of the Edict of Nantes. In the same Medallion History of the reign of Louis XIV., he is represented as offering quite an armful of mural crowns to his father, emblematic of German cities surrendered to his arms, that is, to those of his generals, along the Rhine. This legend surrounds the group: "XX Urbes ad Rhenum à Delphino uno mense subactæ;" accompanied by the further inscription, flattering to Louis, "Documentorum Merces," *i.e.*, Rewards of Paternal Instruction and Example.

III. *The scholars and others who took part in the inception or completion of the series.*—The committee, or syndicate, to use a term just now much in vogue, appointed by Louis XIV. for the formal education of his son, consisted of the following persons: the Duke de Montausier, Governor of the Prince; Bossuet, Bishop of Condom, Præceptor; and Peter Daniel Huet, Sup-præceptor. Of these, as being intimately connected either with the inception or the execution of the scheme of the Delphin classics, I am now to give some account.

(a) *The Duke de Montausier.*—We should scarcely have expected to meet with such a man as Charles de St. Maure, Duke of Montausier, in the palace of Versailles. We must conceive of him as resembling in character our own Iron Duke: resembling him perhaps even in person, to some

extent: a thin, spare, grey man, with the bearing of a self-possessed and high-minded soldier; stern of aspect, but with eyes at once benevolent, observant and animated. He was an incorruptible man, and one who could not flatter. The bourgeoisie of Paris used to say, "We can trust Montausier."

Our modern poet sings of Wellington:

"He never sold the truth to serve the hour,
Nor palter'd with Eternal God for power;
He let the turbid stream of rumour flow
Through either babbling world of high
and low."

And again:

Truth-teller was our English Alfred named;
Truth-lover was our English Duke.
Whatever record leaps to light,
He never shall be shamed."

Montausier was of the stamp of Wellington. The frivolous people about the court did not like him. They mischievously put it about that Molière meant Montausier when he drew the Misanthrope in his comedy of that name. Montausier met their tattle as Socrates met the fun of Aristophanes, when avowedly caricaturing him in the play of "The Clouds." Montausier visited the theatre when "The Misanthrope" was performed, to see himself on the stage, as the frivolous world declared, and he came away well satisfied with Molière's delineation, and avowing that he only wished he were more like the character represented. The Misanthrope of Molière had, in fact, a moral drift like the Timon of Athens of our Shakespeare.

"We know him out of Shakespeare's Art,
And those fine curses that he spoke—
The old Timon with his noble heart,
That strongly loathing, greatly broke."

It speaks well for Louis XIV. that he selected such a man as Montausier to preside over the early training of his son. Louis was as well aware as any one that he was surrounded by syco-

phants, and that simple, unadulterated truth was seldom to be heard in his presence. His conscience told him this was a vicious state of things, however pleasant to his own pride, and self-love might be the adulation offered. He determined, therefore, that his son, at least, should have a true man near him; no mere complaisant Polonius, but a straightforward, honest and useful adviser.

It was Montausier who frankly told Louis, when he declined to receive the dedication of a book from the learned Madame Dacier because she was a Huguenot, that the King of France, the Augustus of the age, the supreme patron of literature, ought not to be a bigot. His coolness and decision, on one occasion at least, had a wholesome effect on the Prince. From some quick gesture on the part of the Duke, while addressing him, the Prince foolishly imagined that he had received a blow from his governor. "How, sir!" passionately exclaimed the Prince, "do you strike me? Where are my pistols?" The Duke turns to a domestic and orders the Dauphin's pistols to be brought. Then, handing them to him, he calmly observes, "And now, let us see what you are going to do with them!" The good sense of the hasty boy led him to apologize. The Duke's letter to the Prince, on the expiration of his office as governor, contained these words: "If you are an honest man, you will love me; if you are not, you will hate me; and I shall console myself." And again, at a later period, when the Dauphin was being extravagantly lauded for the capture of Philipsburg, he wrote thus: "I do not compliment you, Monseigneur, upon the taking of Philipsburg, because you had an army, an excellent park of artillery, and Vauban; but I rejoice with you because you have shown yourself liberal, generous and humane, putting forward the services

of others, and forgetting your own. It is upon this that I have to compliment you." It is evident, had Montausier bequeathed to the Bourbons a *Del Principe*, as Machiavelli did to the Medicis, it would have essentially differed from Machiavelli's.

It was to the Duke of Montausier that the germ-idea of the Delphin classics was due. During the campaigns in which he had taken part when a youthful officer, he had desired to have near him the standard Latin writers for his own use during hours of leisure. But he found that in order fully to understand and enjoy his reading, it was needful to have at hand a huge pile of other books for frequent reference. Hence he thought there might be an edition of the Latin classics so contrived that each volume should be, as it were, self-contained: supplied, that is, at every page with all needful elucidation and comment. This would be a boon to young officers of a studious turn, who at the same time must not encumber themselves with bulky camp-equipment. And now, when the duty devolved on him of studying the necessities of his ward the Dauphin, it struck him that an edition of the Latin authors, of the compact and convenient kind contemplated, would be exactly the thing for him. The King is pleased with the idea. Colbert, the Prime Minister, himself a student of letters, heartily co-operates. The project is made to take shape; the publication is begun. It took twenty years, however, to complete the scheme.

(b) *Bossuet*. — The preceptor-in-chief of the Prince, under Montausier, was, as we have heard, Bossuet—Jacque Benigne Bossuet, afterwards the famous bishop of Meaux. He was one of the most learned and eloquent of all the ecclesiastics of France. Prior to his appointment as chief instructor of the Dauphin he had been

given the bishopric of Condom, in Gascony, by Louis XIV. This honour he now resigned, receiving in exchange an abbey, or the revenues of an abbey, and gave himself wholly to his new duties. He appears to have taken up the general-knowledge department of the Prince's education. He compiled expressly for his use a manual of Anatomy or Physiology; also a treatise on Logic; and a summary of Political Principles, expressed in the words of Scripture. His famous discourse on Universal History, from the Creation to the time of Charlemagne, was composed for the

Dauphin, to whom the first chapter is eloquently addressed. There was printed at Paris in 1747 a History of France, written by the Dauphin himself, compiled from the lectures of Bossuet, and revised by him. Among the printed letters of Bossuet there is one addressed to Pope Innocent XI., in which he describes the system pursued by him and his colleagues in the education of the Prince. All readers are familiar with the fine counterance of Bossuet, so frank, noble, and benevolent, from the excellent portraits of him that abound.

(*To be continued.*)

THE LITERATURE OF EDUCATION: A CRITIQUE.*

BY AN OLD HEADMASTER.

THE great Reviews and organs of cultured thought in England and the United States have set us a good example in giving careful attention, from time to time, to the special Literature of Education. We are glad to see, in the two handsome volumes of the CANADA EDUCATIONAL MONTHLY for the years 1880 and 1881, that the Dominion is by no means behind the mother country or the sister republic in this respect. The EDUCATIONAL MONTHLY aims high; it is thoroughly independent both of trade interests and of officialism, and seeks to point the thoughts of the teaching profession to the nobler aspects of their calling. That in itself is something. The educational literature of Canada is not to be judged by catchpenny publications, nominally in the interest of teachers and of education, but in reality nothing better than mere advertising

sheets of some firm unusually enterprising in its book-peddling operations. The EDUCATIONAL MONTHLY at least aims at something higher than this. Among the contributors we meet the names of some of the best known Canadian writers: Professor Goldwin Smith; Professor Daniel Wilson; Principal Grant, of Queen's University; Miss A. M. Machar, of Kingston; Miss Louisa Murray; Mr. D. C. McHenry, of Cobourg; Dr. Scadding, and Mr. Francis Rye, of Barrie. These are supported by a number of essays on practical questions connected with education by writers not known as authors to the general public, whose work, well selected as it seems to be by the editor, we have no hesitation in pronouncing equal to anything we have seen in English or American educational serials.

It speaks well for the growth of a cultured class among our teachers, that a profession so poorly remunerated should be able to sup-

* The CANADA EDUCATIONAL MONTHLY, Vols. II. and III., for the years 1880-81: a review contributed to the pages of *The Canadian Monthly*.

port with steadily increasing success a Review like that before us. For the EDUCATIONAL MONTHLY, judging from a careful analysis of the articles contained in the volumes for 1880 and 1881, does not appear to address itself to the special requirements of the lower strata of the teaching profession; it does not, like the "penny dreadfuls" of school literature, promise impossible Utopias to the credulous third-class certificate holder, nor pretend to a would-be backstairs connection with the Education Department; its criticism of the Minister of Education and his late Advisory Board, though often trenchant enough, is always courteous, and as far removed from anything like unjust depreciation as from servility. Taking into account the entire scope of these two volumes, this serial brings before the minds of our teachers a class of subjects with which it is highly desirable that they should be familiarized—the dynamics and motive power, as it were, of their calling. We find that each number of the CANADA EDUCATIONAL MONTHLY may, as a rule, be divided into three parts—as, for instance, in the last number issued, that for December, 1881. First, there are several essays on matters more or less directly connected with teaching. Thus the December number has the concluding chapter of a series of essays on "Metres, Ancient and Modern, by C. Pelham Mulvany"—a subject not indeed of any use to those whose sole object is to "cram" for the next examination, but one the careful and thoughtful study of which cannot fail to benefit all earnest students of English literature. With this is an excellent essay, full of suggestive matter, by a gentleman who writes under the obvious pseudonym of "P. D. Gogg," on the legal aspects of the employment of teachers. Secondly, there is a Prac-

tical Department, that of Arts, edited by Archibald MacMurchy, M. A., mathematical editor of the magazine; a Science Department, under competent editorship; a chronicle of Teachers' Associations during the month; a Public and High School Department, containing short articles on matters of current interest, generally of a very practical kind; and carefully edited examination papers. A third division of the contents consists of reviews of Contemporary Literature, generally of educational works, and Editorial Notes; in the present instance the latter consist of a pleasantly written comment, by the editor, on Miss Mary Christie's article in the *Fortnightly* on "The Dry Bones of Education." The *tout ensemble* makes up a *melange* of very useful matter, interesting to any cultured reader, and specially adapted, by its variety as well as by the high tone at which it uniformly aims, to act as a wholesome tonic for the really earnest minds among the profession. And in reviewing the history of the Education Department during the last two years, we cannot doubt that such outspoken criticism has had much beneficial effect, if not in hastening reforms, at least in speeding the departure of lingering abuses. In the September number for 1880, at p. 422, a protest is made, which has been vigorously repeated in many other numbers of this serial, against the vicious system of cheapening the teachers' work by unhealthy stimulation:—

"Competition amongst our High Schools and Collegiate Institutes has broken out into a fever, and unless a stronger common-sense on the part of Head Masters prevails, and a more loyal adherence to the code of professional etiquette manifests itself, our High Schools will shortly enter upon a race with each other that can end only in the degradation of the profession and a sorry cheapening of all that we now prize in our educational system. The Departmental principle of 'Payment by Results' is obviously respon-

sible for much of this unwholesome rivalry, as it is also responsible for much that is vicious in the training of pupils. Under that system a perpetual struggle goes on for additional scholars, that the Government grant may be increased and the school derive whatever benefit may accrue from the possession of mere numbers. Supply and demand being thus unhealthily stimulated, education in the various branches is sold like wares in a shop, and the heads of the school resort to trade devices which, though they may bring custom to their institutions, secure it at the expense of scholastic and professional degeneracy."

This has not been without results in the tendency now evident to disuse the third-class certificates as far as is consistent with securing a supply of teachers.

In the number for March, 1881 (p. 139), the question of the great disproportion of mathematics in our Public School course is thus vigorously dealt with:—

"The disciplinary value of some subjects—Mathematics, for instance—must, of course, be considered when we are reviewing the studies which more sharply compete with them in practical life. But, in our Ontario school system, Mathematics, it is notorious, have been given a prominence altogether out of proportion to their rightful claims. Moreover, in a great measure, they have been taught as the art of a conjuror rather than the mental exercise of a sober logician."

The need of reform in this respect, as against the cry in favour of mathematics as the one great educational agent for girls as well as for boys, was first, we believe, put prominently forward in the CANADA EDUCATIONAL MONTHLY. It was, of course, opposed by the bookmakers' "ring," interested in puffing the so-called "mathematical text-books" of their own employees; but Truth is great, and has in this instance prevailed, so that our girls and boys are likely to benefit by a considerable importation into their mental diet of something more interesting and nutritious than perpetual problems and incessant sums.

In the issue for April, 1881, the

important question of "Mechanics' Institutes' Libraries" is discussed, one of the utmost moment to the intellectual future of our country. Throughout these two volumes the Editorial Notes have maintained a faithful protest against what we cannot but regard as the vicious mismanagement of the Education Department, especially with reference to the now defunct Book Depository. It is not, we believe, assuming too much to say that but for the existence of the CANADA EDUCATIONAL MONTHLY, and the uncompromising hostility it has maintained to "ways that were dark and tricks that were vain," that iniquitous imposition, the Book Depository, would still be flourishing, to the great gain and content of certain favoured officials. Nay, so gross have been the scandals connected with this portion of the Education Department, that the Minister of Education has been forced to hold an investigation into the conduct of the official in charge of the bureau—an investigation held, it is true, with closed doors and jealous exclusion of the public and the press. But even this is a concession to public opinion for which we have to thank the editor of the EDUCATIONAL MONTHLY, whose demand for fair play has penetrated even into that official sanctum, where Justice sits with her eyes bandaged and the blinds drawn down.

In justice to a work which seems to us to occupy a place of high deserving in our growing Canadian literature, we shall attempt an analysis of these two volumes. The number for January, 1880, opens with a thoughtful essay on the University question, from the pen of Mr. J. Howard Hunter, M.A., who advocates greater publicity and freedom of discussion in the University Senate. There is only too much justice in Mr. Hunter's strictures,

and his paper is a telling, because just, censure of the party of reaction. The next article is Professor Goldwin Smith's address on Education, delivered by that gentleman, as President of the Salt Schools, at Shipley, England. Those who consider the great literary value of all Mr. Goldwin Smith's writings on education will feel how much this magazine is enriched by being permitted to give to the public such articles as these. After this comes a selected article, Matthew Arnold on Wordsworth, most admirably chosen, and calculated to awaken enthusiasm for Wordsworth's poetry in the mind of any student of literary taste. Then comes an interesting biographical sketch of an eminent educationist, the late Professor Mackerras, of Queen's University, by Miss Machar, of Kingston. Among the Editorial Notes of this number is one entitled "The Quarrel in the Book Trade," containing some sensible remarks on the duties of the Education Department with regard to the supply of text-books.

The February number for 1880 opens with an essay on "The Tuning Fork," in which the history and use of that musical appliance are described in an interesting and instructive manner by Professor Loudon, of University College, Toronto, who gives us much musical lore put into a very readable form. This is followed by a paper on that vexed question "How to Improve our Teachers," by "Agricola," who is very decidedly of opinion that such a question is not to be met by the three nostrums now in vogue: perpetual inspecting, examinations, and payment by results! Next comes an article on Macaulay's Essays, by Samuel MacKnight, of Halifax, with an able and full analysis of the merits and weaknesses of that extraordinary master of literary style. Mr. MacKnight's paper treats of a book which more than any other is,

in most cases, the introduction to English prose style. But there may be many, even among our most thoughtful teachers, who imperfectly apprehend the position held by the famous "Essays," and still more is it probable that many who have learned to delight in them are misled into a very wrong estimate of their faultlessness. Essays like this of Mr. MacKnight's are indeed a boon for our teachers, and the serial which supplies such reading matter, written for the most part by Canadian teachers, deserves the success which its present circulation seems to show that it has attained.

The March number for 1880 opens with an essay by the Rev. J. J. Cameron, of Pickering, on "The Age of Bacon." This is continued in the April number, and is a thoughtful and suggestive account of the intellectual condition of the age, one of whose greatest products was the founder of Inductive Philosophy. This is just the mental pabulum which we should desire for that higher class of teachers who alone can give the teaching profession its true status. It is encouraging to see that such literature of purely Canadian growth finds audience and support. The next article in the March number is a trenchant criticism on "Education in Ontario and its Machinery." The April number has a paper of the kind which the CANADA EDUCATIONAL MONTHLY has made a *specialité*, the half-comic, half-serious view of some of the side aspects of the educational question, the "Readings from an Old Geography." This is followed by an essay by W. A. Douglas, pleading for the introduction into our school course of the rudiments of Political Economy. The May number, besides "The Teacher vs. the Schoolmaster," by Professor J. E. Wells, and an article advocating what Matthew Arnold has urged in his

Critical Essays, an English hexameter version of "Homer for English Readers," has an important though brief essay on "Hygiene in our Public Schools," by George Wright, M. D., ex-chairman Toronto Public Schools. Next we meet "Readings from an Old Mythology," by Mr. Francis Rye, of Barrie—another specimen, pleasant to read, of the humorous tone, not less enjoyable because it is half serious, with which we often find educational questions treated in this Magazine. The July-August issue has a review of Goldwin Smith's "Life of Cowper," which brings the merits of that admirable biography before the notice of a class who are more than any other likely to benefit by the study, under competent guidance, of the lives of men of letters. We note also with pleasure an article on that important subject the "Study of Words," from the pen of Mr. T. O'Hagan, and an essay, of practical value to teachers, on "English Grammar." "The Arraignment of the Minister of Education" is a review of the action taken by the Hon. Mr. Crooks since his appointment as Minister, commenting on that gentleman's persistent snubbing of Canadian interests and Canadian scholarship. It is well that this topic should be dwelt upon by the more honourable and independent portion of the Educational press. The September issue has a number of interesting essays—that on "Departmental Examinations," by D. C. McHenry, M.A.; on "History and its Study in our Schools," and "Gymnastics of the Brain," by J. A. Grant, M.D. "Iphigenia at Aulis" is an admirable rendering of one of the most pathetic passages in Greek tragedy, by Mr. G. Murray, of Montreal. In this and several other articles bearing on classical subjects the MONTHLY fills the place in Canada of a serial representing that of the London *Academy*.

The remaining numbers for 1880 contain, among other essays of practical value, those on "The Teacher as a Moulder of Character," by Prof. J. E. Wells; those on "The Physical Education of Girls;" and two excellent papers on "Sir Walter Scott's Maturer Poems."

The EDUCATIONAL MONTHLY for 1881 opens with a vigorous series of essays on practical subjects connected with teaching, among which we notice as worthy of special commendation that on the "Position and Prospects of Teachers" in the February number, and that on "Teachers' Encouragements" in the number for March. In the June number, "Composition in our School" and the "Teacher out of the School-room," are thoughtful and suggestive. "School Legislation," in the number for July, is from the able pen of D. C. McHenry, M.A., and is a vigorous and conscientious attempt to treat a difficult subject. "Gullible Candidates and Bogus Examination Papers" is an exposure of some of the many scandals which have unhappily given our Department of Education an unenviable notoriety. Miss Machar's essay on "Compulsory Education," in the September number, is worthy of its gifted authoress. In the October issue we have read with interest Mr. G. H. Robinson's article on the "Revised Webster's Dictionary." In the same number is Mr. W. S. Ellis's paper on the "Need of the Useful in Education." The November number has, among other good things, Miss E. de St. Remy's essay on "The Training of Girls;" and in December we have Mr. P. D. Gogg's thoughts on the important issues connected with the employment of teachers. All the articles we have mentioned are the work evidently of practical educators, men and women who speak with thorough experience of the subjects they discuss. Nor is there any lack

of lighter reading, in all cases subsidiary to the teacher's work, and treating those aspects of classical and modern literature, some acquaintance with which is so necessary to the acquirement of that mental culture which is the substratum of all efficient teaching. Such are Miss Louisa Murray's admirable account of George Eliot, in the number for March; Dr. Scadding's pleasant gossiping papers on "A Boy's Books, Then and Now;" the Editor's contribution on Thomas Carlyle, and his lively and trenchant "Notes of the Month" on educational topics.

The literature of education forms a part, and an important one, of the general literature of the country. With us, as in all free communities, it is inevitable that mere trade interests should attempt to "run" an inferior class of educational journals for advertising purposes, and, in order to catch at the support of the lower ranks of the teaching profession, should affect, by servile adulation of the Education Department, to assume all the airs of being an official organ. Of course, those who understand anything of the position know that the Department has now no official organ whatever. Still, it is a healthy thing for the interests of teachers that there should exist and flourish an independent serial such as that we have reviewed.

In view of the increasing importance of teaching as a profession, we cannot but regard it as a very great calamity that the teacher should be satisfied with any but the very best professional literature. Cheap educational serials, whose *raison d'être* is to promote the sale of the proprietor's "Readers" or text-books, are not only worthless, but do positive harm. The minds of teachers who read these trade journals must take a lower intellectual tone. And there are too many who fail to appreciate what a very bad thing bad writing is. Swedenborg tells of one of the lowest of his hells, where the inhabitants felt no inconvenience and did not know that they were damned! Their condition was hopeless; and such is the intellectual condition of those who habitually read, and are perfectly content with, an utterly inferior literary pabulum. As is the professional serial which he habitually reads, such, very likely, is the teacher himself.

THE CANADA EDUCATIONAL MONTHLY, through its career of the last three years, has taken high ground, has temperately yet fearlessly handled abuses, and has provided for the more educated and more ambitious class of teachers such lessons of culture and guidance as have not been surpassed in any Canadian or American serial of its class.

It is the common mistake of childhood, of ignorance and superficiality, to suppose noise and violence to be the heralds of power; but it is a mistake which advancing reason and intelligence are continually correcting. By slow degrees we discover that it is weakness, not strength, that takes refuge in a storm of words, in noisy declamation, in violent threats or abuse, in loud boasts or fierce denunciations, and that conscious power has no need and no desire to resort to any such means of self-assertion.

HE who makes a baseless insinuation against a neighbour's integrity or honour is guilty of an injustice which is atrocious and monstrous in comparison with the petty depredation of the despicable thief who breaks into his house and surreptitiously carries away his goods.

PREPARE yourself for the world as the Grecian athletes used to do for their exercises; oil your mind and your manners to give them the necessary suppleness and flexibility. Strength alone will not do.

WORDSWORTH—II.

BY THE REV. S. LYLE, HAMILTON.

BUT the event that touched his heart most, and set his blood boiling, was the French Revolution. In a tumult of wild joy he hailed the fall of the tyrant and the rise of the reign of the rights of man as man. As he listened to the cry of liberty, equality, and fraternity, he could feel every pulse of the movement in his own heart, and responding could say :

From hour to hour the antiquated earth
Beat like the heart of man.

To use the language of Stopford Brooke, Wordsworth was a natural Republican. Besides, there was much to attract the young and imaginative, in that great upheaving. "But we, who live upon the broad river of its thought, can scarcely realize what it was to men when first it broke a living fount of streams, from its rock in the desert to quench the thirst of those who longed, but knew not till it came, for what they longed. We who live in times which, though not dull, are sad coloured, can scarcely imagine the glory of that awaking, the stream of new thoughts that transfigured life, the passionate emotion, the love and hatred, the horror and the rapture, the visionary glories, the unutterable hopes, the sense of deliverance, the new heaven and the new earth, brim-full of promises which dawned on men."

Before them shone a glorious world,
Fresh as a banner bright, unfurled
To music suddenly.

Wordsworth's friend, Coleridge, was under a similar spell. He represents freedom as a fierce minister of

love, with whirlwind arm, leaping from the bosom of the Almighty. But both Wordsworth and Coleridge were doomed to be disappointed. If Wordsworth could see nothing but gold in the beginning, as the end came he could easily perceive the dross of the other side of the shield. He was filled with horror as he saw France on her knees at the feet of Napoleon, whom he distrusted and hated. But in the sad school of blasted hopes his heart became more tender, and clung more to what was human. Doubtless his study of the social condition of the workingmen of France made a deep and lasting impression for good. It prepared him to sympathize with the peasants, and reproduce their feelings as he has done in Michael.

"Isabel," said he,
"I have been toiling more than seventy years,
And in the open sunshine of God's love
Have we all lived; yet if these fields of ours
Should pass into a stranger's hands, I think
That I could not be quiet in my grave."

Is this not a faithful expression of the farmer's grief at the thought of being forced to part with his farm? There is not a line in that beautiful poem that is not true to nature. Every stroke proclaims the hand of a master, and the picture of the farmer's grief is simply perfect.

But we would do his wife a gross injustice did we not give her a place in the list of those educators who taught him how to love the true and the good. Admiring the genius of her husband; sympathizing with him in his trials, rejoicing in his joy, she

was a true wife, "dearer far than life and light are dear." With a keen, practical eye, and a taste for poetry, she was able to correct some of her husband's faults. Two of the best lines of the poem entitled the Daffodils—

They flash upon that inward eye
Which is the bliss of solitude—

are her composition. By this happy union—a union of head and of heart—Wordsworth's lot was blessed, and the tenderest emotions developed. How he enjoyed the prattle and the din of his loved children! If the daisy, by the shadow that it casts, protects the lingering dewdrop from the sun, Wordsworth's children protected him from the cares of the world, and were to him a joy and an inspiration. How does he speak of Dora, his infant daughter? He calls her that bright star, the second glory of the heavens.

Smiles have there been seen,
Tianquil assurances that heaven supports
The feeble motions of thy life, and cheers
Thy loneliness; or shall those smiles be
called

Feelers of love, put forth as if to explore
This untried world, and to prepare thy way
Through a strait passage intricate and dim!
Such are they; and the same are tokens,
signs,
Which, when the appointed season hath
arrived,

Joy as her holiest language shall adopt,
And reason's godlike power be proud to
own.

But much as we may love to dwell on the peace, the love, and the joy of the poet's home, we must pass on, and consider the poet's faith in things unseen.

3. Wordsworth's faith. Some call him Deist, some Pantheist, and some High Churchman. Without seeking to go too minutely into the exact shade of his theological belief, I think it right to say that his faith in a personal God was strong and constant. In writing to a friend he says, "Among the more awful scenes of the Alps I

had not a thought of man; my whole soul was turned to Him who produced the terrible majesty before me." True, at times he speaks as the Pantheist does. Take his well-known lines on revisiting Tintern Abbey as an illustration:

And I have felt
A presence that disturbs me with the joy
Of elevated thoughts; a sense sublime
Of something far more deeply interfused,
Whose dwelling is the light of setting suns,
And the round ocean, and the living air,
And the blue sky, and in the mind of man,
A motion and a spirit, that impels
All thinking things, all objects of all thought,
And rolls through all things.

Taken by themselves, these words seem to teach Pantheism. But these lines must be looked at in the light of all that he has written elsewhere of God as a personal Being. And thus viewed they no more teach Pantheism than Paul does when he declares that God is not far from each one of us; for in Him we live, and move, and have our being. Before rushing to the conclusion that Wordsworth is either Atheist, Deist, or Pantheist, let us carefully examine his Ecclesiastical sonnets—sonnets in which he expresses his faith and hope. And a glance at them will show that we may fairly apply to him the words of Tennyson:

I falter where I firmly trod,
And falling with my weight of cares
Upon the world's great altar stairs
That slope thro' darkness up to God,

I stretch lame hands of faith, and grope,
And gather dust and chaff, and call
To what I feel is Lord of all
And faintly trust the larger hope.

Nor is his faith in God concealed in his other works. Look at his sublime ode on the "Intimations of Immortality"—one of the sublimest in any language—and we see his belief in God clearly expressed:

Our birth is but a sleep and a forgetting;
The soul that rises with us our life's star,
Hath had elsewhere its setting,
And cometh from afar;

Not in entire forgetfulness,
 And not in utter nakedness,
 But trailing clouds of glory do we come
 From God who is our home.

He represents, as Plato did, that the child had its home with God before it took up its abode on the earth. When speaking of the evening's calm on the beach of Calais, he gives expression to the same sentiment:

It is a beautiful evening, calm and free;
 The holy time is quiet as a nun
 Breathless with adoration; the broad sun
 Is sinking down in its tranquillity;
 The gentleness of heaven is on the sea.
 Listen! the mighty being is awake,
 And doth with his eternal motion make
 A sound like thunder everlastingly.
 Dear child! dear girl! that walkest with me
 here,
 If thou appear'st untouched by solemn
 thought,
 Thy nature is not therefore less divine.
 Thou liest in Abraham's bosom all the year;
 And worshipp'st at the temple's inner shrine,
 God being with thee when we know it not.

Hear how Brooke speaks of Wordsworth and his religion: "Our greatest poet since Milton was as religious as Milton, and in both I cannot but think the element of grandeur of style which belongs so pre-eminently to them flowed largely from the solemn simplicity and the strength which a dignified and unbogoted faith in great realities beyond this world gave to the order of their thoughts. Coleridge was flying from one speculation to another all his life. Scott had no vital joy in his belief, and it did not interpenetrate his poetry. Byron believed in Fate more than in God. Shelley floated in an ideal world, which had not the advantage of being generalized from any realities—and not one of them possesses (though Byron comes near it now and then) the grand style. Wordsworth alone, combining fine artistic power with profound religion, walks where he chooses, though he limps wretchedly at times, with nearly as stately a step as Milton. He had two qualities

which always go with the grand style in poetry—he lived intensely in the present, and he had the roots of his being fixed in a great centre of power—faith in the eternal righteousness and love of God." Wordsworth never could have reached the heights he did if he had not laid hold of the hand of God, and by this means lifted himself up. Go where he may, he is ever haunted by the Eternal Mind—ever cradled in the arms of divine love. It is the sense of God's presence that makes his poems so calm and comforting and helpful to the troubled spirit. When John Stuart Mill fell into despondency, as he gazed upon the wreck that his ruthless analysis had wrought, he was roused, and cheered, and strengthened by reading Wordsworth. And what did Wordsworth do for Mill? He gave him an insight into the spiritual, the true, and the lasting. The poet with his whole soul had grasped the hand of the Eternal, and was leaning his weakness on the arm of the Omnipotent. With clear eye he could see

The ever-during power
 And central peace subsisting at the heart
 Of endless agitation.

Had I time, and were this the place, I could show Wordsworth's belief in prayer:

Oh! there is never sorrow of heart
 That shall lack a timely end,
 If but to God we turn and ask
 Of Him to be our friend."

Enough, however, has been said to show that Wordsworth was not faithless, but believing.

4. Wordsworth's poems are morally high-toned and spiritually healthy. Tennyson receiving the laureate wreath from the Queen—a wreath he so gracefully wears—pays Wordsworth a high compliment when he says:

Your Royal grace
 To one of less desert allows
 This laurel greener from the brows
 Of him that uttered nothing base.

In Byron the purest gold is mixed up with the vilest dross; in Burns the finest wheat is imbedded in the coarsest chaff. These two kings of song have crowns disfigured with dark blots. Shelley too is open to the same censure. From causes more honourable to himself, he has said much that he ought to have left unsaid. But Wordsworth's hands are clean, because his heart is pure. The high priest of nature, the mediator between rich and poor, the champion of liberty and of truth, the prophet of heaven's peace and goodwill to earth, Wordsworth's poems are as morally bracing as his mountain air is physically. What they did for John Stuart Mill, they will do for every honest and diligent reader. With Wordsworth as your guide and interpreter, the meanest flower that blows will suggest thoughts "that lie too deep for tears."

Inspired by his love of nature,
One impulse from the vernal wood
Will teach you more of man,
Of mortal evil, and of good,
Than all the sages can.

His reverence is so great that he says to the dear maiden standing under the shade of the nut tree, and longing to pull and eat

With gentle hand
Touch—for there is a spirit in the woods.

But whether watching the child of rare beauty feeding the snow-white mountain lamb, or wandering through the churchyard where he meets a blooming girl whose hair is "wet with points of morning dew;" whether he stands in the deep silence before the battle, and calls on England's sons to rise up in their might, and answer the French cry "to glory" with England's sublime cry of "duty," or weeps as he sees the dogs of war let loose, and the best blood of man slain in the name of justice, reason and humanity; he is ever the same tender, true, and

faithful guide who tells us "We must be free or die who speak the tongue that Shakspeare spoke; the faith and morals hold which Milton held." In this feverish and restless age, "when men change swords for ledgers, and desert the students' bower for gold—an age when every door is barred with gold, and opens but to golden keys—Wordsworth's poems are simply valuable beyond all price. He will, if read, teach the rising generation to think deep, live plain, and do right. In his pages you are brought face to face with nature, man and God, and never does he put a cloud between you and these great teachers. He lets them speak to you directly, and the effect is good both intellectually and morally. Nature herself seems, as Arnold puts it, to "take the pen out of his hand, and to write for him with her own true, sheer, penetrating power." This arises from two causes: from the profound sincerity with which Wordsworth feels his subject, and also from the profoundly sincere and natural character of his subject itself. He can and will treat such a subject with nothing but the most plain, first hand, almost austere naturalness. His expression may often be called bald, as, for instance, in the poem of Resolution and Independence; but it is as the bare mountain is bald, with a baldness which is full of grandeur. As an antidote to the unnatural, wild, love and hatred, blood and murder novels, that are devoured by the masses in our day, I would commend a course of careful Wordsworthian reading. Contact with a spirit at once so true and tender, so human and yet with so much of God in it, is certain to purify the affections, and expand our minds. Let us cast out the unclean spirit of a gross and demoralizing sensationalism by introducing the angel of light and of purity.

5. Wordsworth's poetic theory. In

this he is extreme and weak. His practice is better than his creed. His theory is an emphatic protest against the doctrines of Jeffrey and the practice of Pope and his school. In attacking their artificialness, he laid down two principles, and from these he elaborated his theory of poetry. He held that the true poet left the stale, stereotyped phraseology of books, and went direct to the men and women of his day, and from them learned how to speak; and that the language of true poetry in no way differs from that of good prose. His friend and admirer, Coleridge, disputes the truth of both positions, and convicts Wordsworth of false philosophy. With Wordsworth he agrees in condemning "the gaudy affectation of style which had long passed current for poetic diction," and refuses to call that poetry which would be intolerable in conversation or in prose. But Coleridge denies that the peasant's language is better adapted for poetic purpose than that of the refined. Besides, Wordsworth forgot that the language of the peasant, purified of all that was either coarse or provincial, was not that of every-day life. Indeed, as Principal Shairp has shown, as Coleridge has proved, Hooker, Bacon and Burke use language as real, as expressive, and more comprehensive than that of the unthinking and uneducated. "The language of these writers differs far less from the usage of cultivated society than the language of Wordsworth's homeliest

poems differs from the talk of bullock drivers."

Again: Coleridge takes issue with Wordsworth on the second point, and argues that as poetry implies more passion than prose, it must have a more impassioned language in which to express itself. The feeling creates a new medium, and gives tone and colour to the language. Doubtless this defective theory led Wordsworth into some of his faults—the wordy prose, the lack of art, the absence of glowing passion. Wordsworth is what he is in spite of his theory. But though extreme, his faults lean to virtue's side. Besides, by raising the question of poetic language, and by writing simply and naturally as he did, he powerfully influenced the literature of this century, and all for good.

In taking my farewell of one so dear to me as a friend, I cannot find language more appropriate than his own:

I thought of thee, my partner and my guide,
As being passed away—vain sympathy!
For backward . . . as I cast my eyes,
I see what was, and is, and will abide;
Still glides the stream, and shall forever
glide;
The form remains, the function never dies;
While we, the brave, the mighty, and the
wise,
We men who in the morn of youth defied
The elements, must vanish—be it so!
Enough, if something from our hands have
power,
To live, to act and serve the future hour;
And if, as toward the silent tomb we go,
Through love, through hope, and faith's
transcendent power,
We feel that we are greater than we know.

THE MIND.—Nothing so adds to the treasures of the mind and increases its power as its own thinking. Learn to think for yourself. It is all very well to hear and to read the wisdom of others; but one should not let this take the place of one's own thought. Many persons are like cisterns; they are good to hold the thoughts of others;

but when the time comes that they are forced to rely on themselves, they have no power to do so. The outside supply is cut off, and the cistern runs dry. But if one, like a river, is constantly fed by one's own springs, then as the learning of others comes to him, it unites with his own waters, and the stream widens and deepens.

A YEAR IN ENGLAND: WHAT I SAW, WHAT I HEARD, AND
WHAT I THOUGHT.

BY A CANADIAN.

(Continued from page 105.)

III.—FIRST IMPRESSIONS OF LONDON.

DEAR SAMMY,—

HAVE you ever attempted to analyze your mental attitude in regard to any great object which may have been gathering importance on your mind for years and years? Could you account for the magnitude of the conception, dim though it may be, which, like the huge snowfall, is made up of endless numbers of small additions, but, unlike the snow, of dissimilar character? To me such a conception connects itself with the name of London. However, apart from that vague notion which always exists to a greater or less degree, till we have actually seen the object of our thoughts, there was on my mind a large number of better-defined ideas which I had gathered up, not from reading so much—for I do not find such means of information always imparts to me, whatever may be your experience, ideas that seem to put my mind in a condition to square with the reality—but from the conversations I had had often and again with a matter-of-fact Londoner who was for some years a room-mate of mine in a certain city in the Dominion of Canada. He had returned long since to his native place; but I looked forward with great pleasure to meeting him, and sure enough I saw his beaming, humorous face as soon as I put my foot on the platform at Saint Pancras station; and almost at once, after ex-

changing one of the heartiest of greetings, he cast his eyes about significantly and said, "Look at this," meaning the magnificent station, and I read in his waggish eye the query, "Did I exaggerate when I told you of London?" After getting my baggage by itself on a truck and taking a leisurely survey of the surroundings, we stepped forth into what has proved to me the greatest human wilderness, not that I ever knew, but that my imagination ever conceived. My friend kindly deposited me in a "four-wheeler"—what we call here "a one-horse cab;" and through some of this wilderness of civilization—all the more perplexing as it was night—I was driven, over stone roads, seeming to turn infinite corners, go up, go down, stop short, rattle along amid a ceaseless din of noise, till at last the driver was directed to go to a certain church. This admonition to a cabby rather startled me, for I had not come to be married, or buried either if I could help myself; nor did I suspect that my practical friend had turned parson or sexton—for, to speak truth, I had always found him a good deal more of a Christian in deeds than in name. But it can be well understood how an old church that has been very much what it now is for three or four generations past, is a much better guide in a place like London than such and such a street; for with all the conservatism for which the old city is noted, streets do change their names and new ones are made,

old ones widened, etc., etc. Having been made comfortable in an English home, after a long talk about the past and with a programme made out for the morrow, I retired and endeavoured to recover my equanimity, for I confess I felt the new state of things almost as strange as if I had been suddenly transported to the moon; an ocean voyage, a swift railroad ride of 200 miles, a go-every-way (not "go-as-you-please") ride in a cab over such roads as I had never known before, amid a forest of houses, with all around the glare of gas-lights, and a good deal more that I cannot describe, to a comparatively verdant inhabitant of an ambitious but almost equally verdant colony. Well, Sammy, to sum it up, it was just enough for my composition to put up with. But I left out one factor—a very important one—not knowing a single soul in London, as I thought then, except my host. Yet, wearied as I was, sleep did not come; the noise—and such a noise—so varied, so composite; there seemed to be near sounds that could be analyzed, though some could not, and this ignorance of what noises import, you must have noticed, Sammy, has anything but a calming effect on the mind. Then there was the never-ceasing, far-off din—the chaos of sound—which meant nothing but endless activity, the expression in one form of the life of millions of human beings and their helpers of the lower creation.

By a strange and happy arrangement by which our nervous centres have the faculty of indifference to the impressions made on the special senses, I came to regard this din as little in a few days, or at most weeks, as I would have regarded the rattle of carts through a village street. Indeed, so much so did this become the case, that I, like others, was unconscious of any special increase of sound over what I had been accustomed to,

till attempting to converse with an acquaintance on the street, when we found ourselves obliged to indulge in a sort of shouting that was not a little fatiguing. This explains why so many of those people who get their living in the metropolis by hawking about various articles, and shouting loud enough to make themselves heard in the houses with the doors closed, acquire such harsh tones, and, indeed, often lose their voice altogether. As my business while in London required me to get from one part of the city to the other frequently and rapidly, my friend advised me to pursue a course I have not regretted. I was already provided with the indispensable map of the city; so with it in hand, I, according to his directions, perched myself on the top of the ubiquitous omnibus, and for days I rode for many hours simply with the view of getting some practical notion of how to navigate my own way in this perplexing sort of interminable archipelago. Later I studied out, and availed myself constantly of the underground railway.

But of the modes of getting about *per vias naturalis et innaturalis*, you may hear more again. After all, Sammy, give me a good pair of legs and a strong will for London or anywhere else under the sun. You say in your letter that I am to be sure and give you my *first* impressions of London. With me, Sammy, very much as it is, I think, with the fairer sex, first impressions are the most correct both as to objects and persons, especially the latter. Do you know, Sammy, I have often wondered whether a genuine Scotchman had any first impressions, strictly so called. He turns everything over so cautiously in his mind that, like a fellow with a bag full of money, he does not know which coin was at the top when he began, but only knows that it is all there. Will you give me your opinion

on this matter ? for I confess a Scotchman is to me a sort of conundrum. I met one frequently in the metropolis, and tried to see through him, but could no more do so than tell what was on the other side of the street in a thick London fog. He was such a modest, unpretending fellow, so willing to learn from you, and yet the first thing I knew he was ahead of me, and the worst of it was that I made this discovery very often ; and in London, as everywhere else, they forge ahead. I only wish, Sammy, that in doing so they did not so often forget to give their neighbours (other than Scotch) a hand. All honour to them for what they do for *themselves* ; but they kindle no generous admiration. Unlike the Irishman, whom I find in London, as in the world over, the unfortunate Irishman, but withal the open, generous, high-minded man, who seems to have the faculty of rapid sympathy with every human feeling—loving what is lovable in you, and forgiving what is weak and small. I feel like saying a word for Irishmen just now, Sammy, as their treatment, present and past, has tended to show the world some of their *worst* traits. As I heard an Englishman, and a noble one, too, say at a dinner among a number of Tory fellow-country men, who were alluding to the atrocities committed, etc., “If you go behind a mule and prick him, do you expect that he will not kick ?” Sammy, I pray you deliver me from the condition of things in this world your Englishman, when a Tory, would establish ; I mean your genuine-born Tory. To freedom in the American or Canadian sense, the best sense the world has practically known, too, you may say, “Farewell for evermore !” But I have wandered aside from the point. You are to know of my first impressions of London.

For myself, Sammy, I always note, very early, in a city new to me, the

cattle employed on the streets and the vehicles to which they are attached. These to a certain degree are an index of the moral character of the people. When I saw in Liverpool and in London three horses abreast attached to an omnibus, and noted that these animals were not over-driven, as they generally are when the property of a street car company in Canada, I formed an opinion favourable to the moral character of the English, but unfavourable to their æsthetic nature ; for three horses abreast is not a sight that conduces to beauty. It seemed odd enough to me to witness a huge waggon, with the broadest of tires to the wheels, drawn by three or even four horses tandem, the driver with his immense whip walking by the side of them, and directing their movements chiefly by the swaying of the same ; and, by the way, the driver was, in almost every instance among his own species, almost a parallel to that of the beasts he controlled among theirs—slow, heavy, phlegmatic, and not too bright in his wits, and sufficiently gross in his habits. In a certain sense the agricultural labourer, who drives his master's cart to town, is much more of a brute than the brute he controls. But, Sammy, he has my keenest sympathy, for if he be brutish he owes it to his Tory superiors, who believe in his *absolute* and necessary inferiority—a thing ordained of Heaven (may Heaven forgive them !)—a thing to continue, and well to continue, for the good of himself and his superior order. Yes, Sammy, he is indeed a poor, contented country Jack, a brute ; but then he is an honest one. But some day the brute will show he is a man, and the English Tory will find it out, too ; and his views of things human and divine may undergo a sudden and rude change. O, Sammy, give me our greenness, our poverty as a nation if you will, our lack of culture, our paucity of glorious (?)

military events, but give me Canadian freedom—that principle that recognizes in the lowest citizen and the highest alike, that a man may be what he may be upon his merits. But what has this to do with London? Alas! too much, as you may learn later. Owing to the gradual growth of London, it combines in a remarkable degree the homogeneous and the heterogeneous. A few hundred yards from the wealth and magnificence of Piccadilly we find the squalor, poverty and ignorance of Seven Dials. Yet there is a good deal of the homogeneous. You walk down an entire street and find every house upon it built in almost precisely the same style; so that you might, without close regard to the lumber, do as I myself have done, walk up to the door of a neighbour, taking it for your own, and this either without having poured any beer into your stomach. Such a state of things seems natural to the quiet, rather prosy, unimaginative English mind. Besides, that great leveller of all things in the way of beauty—the London fog—is a most powerful agent in rendering things uniform, dreadfully so at times, for people ignore the identity of others until they come into collision with them. But even the finest building soon comes to wear a begrimed, ancient look in the metropolis.

It would be difficult to imagine a place in which one finds his way so badly as in London. London, in fact, never was laid out—like Topsy, it “grewed” to be what it is, and although much improvement in the way of substituting for narrow streets (once lanes, as their names imply) wider ones, yet the roads meet at all sorts of angles. There is no general principle regulating the structure of the city. You must learn it by actual contact with the place, for there is no more a general key to it than to the Chinese language. Londoners differ widely in their learning, for among the

lower classes a knowledge of the London world comprises their all. I have known a cockney of thirty years' residence to be quite lost as to his whereabouts for a little time. The apparently entire absence of wood (except little packets of kindling) in the metropolis is very striking to a Canadian. I say “apparently” only of course, for houses could not be built without wood; but then there are no shingles—all tiles—no wooden side-walks, no wood for fuel, etc., etc. On the other hand, there is a stoniness that is equally thrust upon the Canadian's notice. He walks on stone sideways; he drives over stony streets, not over macadamized roads (in the city), but made of stones of considerable size, set much as they sometimes are on our stone crossings. True, along the best ways the new asphalt or similar pavement is in use, but not as yet very extensively. The noise made by driving over such stone roads is frightful, and there is a peculiar concussion communicated, it would seem, to every nerve in your whole body. I should think it would almost send some nervous old ladies into a fit. But one can get used to anything, and so with these roads, whose durability is greatly in their favour. After a dreadful fight, the street cars (“tram cars”) were introduced, but as yet they are allowed to run only in certain parts, and the so-called “City” is to them holy ground. Vested rights proved too strong for popular feeling in that matter. Omnibuses run everywhere, and they somewhat resemble our own, but the drivers form a special *genus* which I must reserve for future description. Indeed, Sammy, I think I will just leave you in the hands of one of the 'bus drivers or conductors till we talk again, and you had better look to your wits, for you are with a pretty sharp fellow, I can assure you.

Yours ever, TOMMY.

(To be continued.)

MR. PUZZLE, H.M.I.

A PHILOSOPHICAL STUDY.

[The following spirited sketch is from the pen of Mr. James Runciman, a teacher who is, we believe, in the employ of the London (Eng.) School Board. It was contributed to *The Schoolmaster*. In England the School Inspectors are appointed and paid by the Government, and are selected, not from the teaching profession, but from graduates of the University. We in Ontario are comparatively free from such eccentricities of nature as Mr. Puzzle, at least so far as the body of Public School Inspectors is concerned. The only spot where such a being has found a resting-place with us has been at the Central Committee Board. He showed some characteristics of his peculiar genius in the papers of the last Entrance Examination; but these produced such an outcry that we do not think he will have the hardihood to face such a storm again...]

FOR a very long time Mr. Puzzle was only a myth to me. I could not formulate a distinct belief in his existence, although the rumour of him was in the air, and came faintly to my ears again and again. When amid my professional brothers I engaged in discourse concerning Standards and Inspectors and other institutions, it often happened that some earnest man said in a grave tone, "Do you know Puzzle?" When I acknowledged ignorance, I was congratulated in a way which surprised me. Gentlemen would relate to me wild legends having Puzzle for hero. Haggard masters would say, "Oh, you don't know anything about school inspection until you've seen Puzzle up to his ordinary games." Sometimes scraps of conversation like this would reach me: "I'm tired. Puzzle has been with us all the week. He fell asleep in the middle of a grammar lesson, and made an awful row when

he woke up and found the assistant had changed. He set all the mistresses in our girls' department crying." So it came about that Mr. Puzzle was often in my thoughts. At last I heard a most outrageous anecdote which had the unhappy merit of being true. Five young assistant masters and a head master were talking together during the midday recess when a gleeful messenger entered and said, "Have you heard about Puzzle?" A heartless assistant propounded a counter-query, "Is he dead?" "No," said the messenger; 'but he's going to leave our district.'" Joy overpowered all sense of decorum. Those seven men joined hands and extemporized a species of war dance which was remarkable for originality and vigour. This tale determined my course. I resolved to track Mr. Puzzle in his native wilds, and to study him. I would submit to no more uncertainties. I did not succeed in seeing the object of my curiosity for many days, but until the moment of fruition came I occupied much time in gathering knowledge regarding his habits and customs. Sometimes I became involved in doubts; but my doubts were always dismissed very speedily. On one occasion I was sitting among some two score teachers when the inevitable name began to be buzzed around. A woe-begone gentleman was relating how "Puzzle got hold of my Standard II., and he said, 'If all the water were land, and all the land were water, what would England be?' and he floored them because they didn't

say 'A lake.'" Keen in the pursuit of information, I turned to a lady who was near me and said, "This Puzzle is a very silly man, is he not?" Whereupon the lady frowned on me and observed, "No! On the contrary, he's a very wise man, and very indulgent." My whole conception of Mr. Puzzle's character became chaotic at once, for this statement was evidently made in perfect good faith. Half-an-hour after I mentioned the lady's reply to a keen, good-humoured gentleman who happened to know Puzzle's district very well, and this gentleman smiled a broad and significant smile. When he had managed to straighten his face he said, "I dare say she's quite right from her point of view. You know Puzzle's a crotchety old ass, and he takes likes and dislikes just the same as a spoiled baby. But he really is sensible in some things, and when he visits one of his pets he can be as nice as anybody, and they get along well with him." My lady friend's generous defence of her Inspector became comprehensible. Soon after this I saw my man, and got a good look at him, which taught me more than hundreds of woe-begone legends. It is a curious head. The brow is very good in its feeble intellectual way. The owner of that brow might have been top boy in his youth, and might have also been everything that a fond mother could desire. But the marks of the large nature are wanting. The eye is very fair, although chance gleams give a sardonic expression to certain involuntary glances. The mouth is feeble, nervous, cynical, cruel with the cruelty of a weak nature. There are odd lines sloping away from the sensitive nostrils to the jaw, and those lines have been bitten in the face by sheer ill-temper. A long course of unchecked self-indulgence is answerable for them. Not self-indulgence of a low sort by any means. But

Mr. Puzzle has never denied himself the luxury of small tyranny; he has never held back a cruel word or a useless sneer. Thus it is that his face is netted with unkindly lines, and thus it is that his every feature gives notice of an inward likeness that passes words. If this man had been rebuffed and beaten by the winds of the world, he might have been a kindly, feminine sort of creature—a benevolent vicar, perhaps. But he has had constant opportunities for exercising mastery, he has not been startled by burly frank resistance, and so there he is with his clever, feeble, sardonic face—a small tyrant, and a very poor specimen at that. For one grotesque instant, I thought "I should like to place Chinese Gordon alongside of that person for a minute." Alas! my hero, forgive the irreverence! It was but a grotesque thought, and yet, seriously speaking, one might do worse than think of a king like Chinese Gordon in connection with a pottering fidget like Puzzle. Look at Gordon's royal head, set on the royal throat. The mystic eye is calm and holy, as though it had never looked on sin or on aught ignoble. The splendid repose of the whole face tells of kind thoughts and great thoughts. The man has never known littleness; he is incapable of a sneer. I really do not think he could manage to say to a frightened girl, "Now, Mary, you shall not have your certificate this year." So the story of his heroic life and his heroic gentleness is written on his face. That is why I wanted to see him alongside of Puzzle. We English are a queer set. When we get hold of a person like Chinese Gordon, we give him drains to inspect during the odd weeks when he is not organizing empires; when we get hold of a person like Puzzle, we give the minds of a few thousands of children into his keeping.

Since the time when I studied Puzzle's face, and watched the twitching of his tell-tale hands, I have thought much about him. I find myself asking how it is that individuals like to him are permitted to thrive and exercise influence in our midst. The question is a wide one. We English used to be a fierce and jealous people. We would loyally bear a certain amount of pressure from men in authority, but no one dared tempt our forbearance too far. We are not less fierce or jealous of authority in these days. The democratic spirit is spreading, and the hand of authority is impatiently brooked. Yet whole sections of our community are dominated by beings like Puzzle and his prototypes, and dare not resent the domination effectually. Is it because Puzzle has superior claims? Let us see. When Puzzle was a boy he was well taught. He went to the university, and when he was about twenty-three years of age he passed a good examination in certain languages and certain exact sciences. As a reward for his boyish feat, the nation puts Puzzle into an honourable and lucrative situation, and pays him well for life. All this comes on the strength of his boyish examination. But Puzzle is not humbly grateful to the nation. On the contrary, he is aggressive, and accounts himself a very superior being because he is well paid out of the Imperial taxes. Now it happens that Puzzle's business is to assess a certain grant which the State pays for the encouragement of education. Under proper arrangements he ought to go very humbly and respectfully to the schools, do his duty without any prating, and depart. Mark how he enlarges his functions, and how he is suffered to go on enlarging them. His very entrance to a school is made with an air of authority which is entirely gratuitous and impertinent. He addresses

the teachers as though he was their natural superior, and this impudent assumption is not resented. Then he begins his work. He is paid to assess a certain grant for reading, and his duty is simply to find out whether the master or mistress has taught the subject of reading properly during the year. He looks at the books and finds that they are not sold by a certain vendor. Then says Puzzle, "You must not use these books. You must teach reading, not as you like, but as I like, and therefore your employers shall buy the necessary books from the tradesmen whom I patronise." Now, instead of instantly reporting this audacious piece of jobbery to the Department, the teacher smiles and orders the books commanded by Puzzle. Here is a gross exercise of illegal pressure, and yet a whole borough inhabited by our fierce nation submits tamely to the pressure. Why? Because they do not look minutely into their own affairs. They dabble in generalities.

Well, Puzzle is encouraged by this submission. Then his petty mind is stimulated to further excess. He finds the teachers anxious to please him; he finds some of them who say "Sir" with every tenth word, and his notion of his own superiority is indefinitely increased. He takes the teachers at their own valuation, and plays off his humours upon them. He satirises this, scolds about that, threatens about something else, instead of going quietly about his work. The teacher, who ought to stop the peevish creature's mouth with a few curt, rasping words, is too much in the peevish creature's power, and therefore endures him. Then Puzzle grows more autocratic. Without any check, he is allowed to impose upon the children in the schools an examination far harder than almost any other inspector in the country. The teachers of his district are actually

represented as being men and women of inferior ability, simply because Puzzle gives tests which are often capricious, often extravagant, and nearly always unfair. No one makes a resolute stand, no one threatens exposure, and Puzzle goes on. Then ever and again we hear that some poor wretch who cannot satisfy Puzzle's requirements by reason of certain local disadvantages is cast adrift and sent to hunt for a new situation.

Now, I contend that Puzzle has no business to be satiric, he has no business to interfere in the slightest degree with any school arrangement, and he has no business to set examinations of exaggerated difficulty.

From all these things it comes about that a large number of estimable, hard-working, right-minded people are kept more or less in a state of apprehension from year's end to year's end, while Puzzle triumphs and prides himself on being the kind of man who keeps subordinates up to the mark. When he speaks at public meetings he always talks of "*My* teachers," and explains that though he has to blow them up occasionally, yet it is all for their good. The inconceivable effrontery of the allusion to "*My* teachers" never seems to strike the hearers. A Government clerk who is paid to assess grants ventures to talk of some four hundred ladies and gentlemen as *his* teachers, and no one reproves him. If the gas company's clerk who takes the readings from our meters, were to mention a certain street as being inhabited by "*his*" tenants, we should laugh; but we never laugh at Puzzle. With the same indifference we treat Puzzle's allusions to "blowing up," although this same blowing up has very serious social consequences. I spoke just now about people living in a state of apprehension. I do not for an instant imply that Mr. Puzzle's teachers lead lives of constant wretchedness, but I

assert that they are subjected to incessant petty worry, and to many harassing and needless doubts. This tells with especial hardness on the schoolmistresses. The mention of mistresses brings me to the most painful subject which I have to consider.

There are few things in life that seem to me sadder than the obscure troubles endured by an ordinary schoolmistress who teaches in a district presided over by a person like Puzzle. The average female teacher is nervously eager to perform the uttermost part of her duty; she is minutely conscientious in her attention to small things; she has that patience which men sometimes lack. Above all, she is apt to have an exaggerated reverence for those in authority, and to manifest her reverence in various ways, which I find singularly pathetic. To see one of the poor souls on the morning of an examination day, and to watch her flushed face and her undecided hands, is not exhilarating. I know that some mistresses are able to take some things lightly. They have tact, and resource, and steady nerve; they do their work thoroughly, and they do not fear any official in the world. There is no trembling of hands nor shaky voice where they are concerned, and an Inspector like Puzzle has to keep himself within bounds when he is in their schools. But the average mistress, unhappily, has neither tact nor resource nor self-possession. She has seen little of the world, she is anything but reposeful in her demeanour, and a paternal Government has educated her very ineffectively indeed. She can teach well, as a rule, because of her long mechanical training, and she tries her utmost all the year round. But in personal adroitness and courage she is deficient by reason of her education. Her very conscientiousness is against her, for she is continually doubting her own powers. The approach of an

inspection-day is torture to her. Not once, but a hundred times, I have heard girls and women say, "Oh, dear ! I do wish the examination was over. It would be such a weight off my mind." Merry girls who are soon to be married, and taken out of the worry, do not fret themselves much. But there are many good women who do not marry speedily, and who teach on for years. Fancy what these people endure at the hands of Puzzle and of Puzzle's peers ! I know one poor lady who happened unwittingly to offend the individual who inspects her school. The individual said, "I will make you repent it as long as you live." No one was there to apply a retributive boot to this bully. He has kept his word. His victim goes about in a very foolish way. She is thin and worn, she does not care for food, and she does not sleep well at night. She has worn herself away with fear of her tyrant.

Now, women of the type that I have named suffer most severely from Puzzle. They cannot reply to his half-hidden gibes ; they are overawed by him ; the faults in their work are not kindly explained, but are made the subject of cowardly ironic remarks. So it happens that sometimes Mr. Puzzle makes two or three ladies cry in the course of a single day ; and so it also happens that blameless, toiling women look forward to Puzzle's appearance with dread. It may be said that all inspections are dreaded by nervous women, and that not the inspector but the system is blamable. This is not true. Did ever any schoolmistress dread inspection by Mr. Matthew Arnold ? No one will suspect me of reverence for Mr. Arnold's opinions. It has been my duty again and again to expose his inaccuracies. But it is certain that although as an educational talker he is a failure, yet as an inspector he is perfect. He has not room in his

heart for a jeer ; he bestows delicate courtesy wherever he goes ; and the teachers under his charge look forward to his coming with pleasure, and see his parting with regret. He has always been the same. He is too high a soul to find pleasure in satirising a frightened woman ; and yet I fancy that the schools inspected by him are quite as efficient as the schools inspected by Puzzle. Here, then, is another query for Englishmen. Why should an official visit of Mr. Arnold be anticipated as a delightful experience, while an official visit of Mr. Puzzle is dreaded ? It cannot be because the one man is a courtly gentleman and the other is not, because in properly regulated societies a snob is always efficiently held down and rendered inoffensive. No. The difference arises from the fact that no check is applied. In Mr. Arnold's case a check on tyranny does not happen to be needed. But school inspections are arranged as though all men were like Mr. Arnold, whereas Mr. Puzzle is not in the very least like Mr. Arnold. The whole evil arises from the fact that Englishmen are forgetting that they govern themselves. We elect servants to do our bidding, and we suffer them to become our masters. The official class is becoming the plague of the community, because the community will not look sufficiently into its own affairs. There is too much centralization and too little organization. There is a lack of healthy jealousy, a lack of keen supervision. The descendants of the people who cut Strafford's head off are actually beginning to take for granted that it is useless to fight against an official at all. This belief must be altered, or ruin will ensue. I never yet heard of a State in which the official class obtained supreme power without also finding that that State came ultimately to disaster. We pride ourselves on our system of

local self-government. But what is the use of a dummy system? What is the use of local authorities if the schools in every district are really governed by an officer from a central bureau? Mr. Puzzle does as he pleases, because the managers of the schools fear his official power and do not insist on controlling him. If half-a-dozen resolute managers were to assert their undoubted right, and superintend a few of Puzzle's examinations, his tyranny would end. Of course he would be insolent at first, because long immunity has pampered

him, but a quiet man could soon stop his insolence. A series of interruptions like this would soon bring him to his senses: "Mr. Puzzle, the managers have consulted the head teacher, and they have decided *not* to use the books ordered by you, as there are others better fitted for our work." "Mr. Puzzle, be kind enough to *report* on the organization of this school, but do not suggest alterations." "Mr. Puzzle, your remark to this lady is unwarranted. Your business is to assess grants and not to scold our teachers."

LUXURY.—In Juvenal's time the salary of a good cook was ten times higher than that of a tutor, a man of learning and ability, who, according to Lucian, was deemed well paid with two hundred sesterces a year. The salary of Dionysia, a *danseuse*, was two hundred thousand. The houses and establishments of the two players in pantomime, Bathyllus and Pylades, rivalled those of the richest patricians. There were three Romans named Apicius, each celebrated for devotion to gastronomy. The second, who flourished under Tiberius, was the most famous, and enjoys the credit of having shown both discrimination and industry in the gratification of his appetite—so much so that his name has passed into a synonym for an accomplished epicure. After spending about eight hundred thousand pounds on his palate, he balanced his books, and, finding that he had not much more than eighty thousand pounds left, hanged himself to avoid living upon such a pittance. Lempriere's version is that he made a mistake in casting up his books, and hanged himself under a false impression of insolvency. The outrageous absurdities of Elagabalus equalled those of Caligula and Nero. He fed the officers of his palace with the brains of pheasants and thrushes, the eggs of partridges, and the heads of parrots. Among the dishes served at his own table were peas mashed with grains of gold, beans

fricasseed with morsels of amber, and rice mixed with pearls. His meals were frequently composed of twenty-two services. Turning roofs threw flowers with such profusion on the guests that they were nearly smothered. At the seaside he never ate fish, but when far inland he caused the roe of the rarest to be distributed among his suite. He was the first Roman who ever wore a complete dress of silk. His shoes glittered with rubies and emeralds, and his chariots were of gold, inlaid with precious stones. With the view to a becoming suicide, he had cords of purple silk, and poisons enclosed in emeralds and richly-set daggers; but either his courage failed when the moment arrived for choosing between these elegant instruments of death, or no time was left him for the choice. He was killed in an insurrection of the soldiery in the eighteenth year of his age, after a reign of nearly four years, during which the Roman people had endured the insane and degrading tyranny of a boy.—*Quarterly Review*.

POLITENESS is the legitimate result of good nature and good sense; it is therefore wholly distinct from any factitious circumstance of birth, education, wealth, or talent. Many a nobleman is less polite than a ploughman; many a *savant*, many a millionaire, and many an artist might take lessons in politeness of a labouring man.

UNIVERSITY WORK.

MATHEMATICS.

ARCHIBALD MACMURCHY, M.A., TORONTO,
EDITOR.

SOLUTIONS

to Problems in April number, by Mr. W.
Bickell, Mountsburg.

ALGEBRA.

1. If $(a^2 + bc)(b^2 + ca)(c^2 + ab) = 0$, prove that

$$\frac{1}{a^2} + \frac{1}{b^2} + \frac{1}{c^2} + \frac{1}{abc} + \frac{a^2 + b^2 + c^2 + abc}{a^2 b^2 c^2} = 0.$$

The first expanded gives

$$a^2 b^2 + b^2 c^2 + a^2 c^2 + a^2 b^2 c^2 + a^4 bc + ab^4 c + abc^4 + a^2 b^2 c^2 = 0.$$

This divided by $a^2 b^2 c^2$ gives

$$\frac{1}{c^2} + \frac{1}{a^2} + \frac{1}{b^2} + \frac{1}{abc} + \frac{a^2 + b^2 + c^2 + abc}{a^2 b^2 c^2} = 0.$$

2. If $x + y + z = 0$, prove that

$$(x^2 + y^2 + z^2)^2 = 27x^2 y^2 z^2.$$

(i.) $x + y + z = 0$.

(ii.) $x + y = -z$; (i.) transposed.

(iii.) $x^2 + 3x^2 y + 3xy^2 + y^2 = -z^2$; (ii.) cubed.

(iv.) $x^2 + y^2 + z^2 = -3xy(x + y)$; (iii.) transposed.

(v.) $x^2 + y^2 + z^2 = 3xyz$; substitution of $-z$ for $x + y$.

(vi.) $(x^2 + y^2 + z^2)^2 = 27x^2 y^2 z^2$; (v.) cubed.

ARITHMETIC.

1. A mortgage, dated 1st January, 1872, payable in three equal annual payments of \$200 each, with interest on the whole payable half-yearly at 6 per cent., is sold on 1st July, 1872; what sum must the purchaser pay so that the investment may be worth 8 per cent.?

The \$200 of last payment has been accruing interest for 3 years payable half yearly; \therefore amount of this = $200(1.03)^6$. Similarly, second payment = $200(1.03)^4$, and first pay-

ment = $200(1.03)^2$. \therefore Amount due at end of 3 years

$$= 200(1.03)^2 \{ (1.03)^4 + (1.03)^2 + 1 \},$$

and present worth of this at 8 per cent. for $2\frac{1}{2}$ years

$$= \frac{200(1.03)^2 \{ (1.03)^4 + (1.03)^2 + 1 \}}{(1.08)^{2\frac{1}{2}}}$$

$$= 200 \frac{(1.03)^2}{(1.08)^{2\frac{1}{2}}} \{ (1.03)^4 + (1.03)^2 + 1 \}.$$

2. A farmer mixes corn and wheat in the ratio of 8 to 9; had he taken 12 bushels more corn and 9 bushels more wheat, the ratio would have been as 12 to 13; how many bushels of each did he take?

$\frac{1}{7}$ of first mixture + 12 bush. = $\frac{1}{4}$ of first mixture + $\frac{1}{2}$ of 21 bush.

$(\frac{1}{4} + \frac{1}{7})$ of first mixture = $12 - 10\frac{1}{2} = 1\frac{1}{2}$ bush.

$\frac{1}{4}$ of first mixture = $\frac{3}{8}$.

$\frac{1}{7}$ of first mixture = 96 bush. = corn.

$\frac{1}{7}$ of first mixture = 108 bush. = wheat.

Ans. 96 bush. corn, 108 bush. wheat.

Solutions were also received from Mr. Barton, Weston, and Mr. Fuller, Amherstburgh.

UNIVERSITY OF TORONTO.

ANNUAL EXAMINATIONS, 1882.—FIRST EXAMINATION.

ALGEBRA AND TRIGONOMETRY—(PASS).

Examiner—W. J. Loudon, B.A.

1. Divide $8x^2 - 24x + 22x - 6$ by $2x - 1$, and multiply the result by $4x^2 + 10x + 6$.

2. Expand $(1 + 2x + 3x^2 + 4x^3)^2$ and $(1 + \frac{1}{2}x + \frac{1}{3}x^2)^2$.

3. Simplify $bc \cdot \frac{a^2 + x^2}{(a-b)(a-c)}$

$$+ ca \cdot \frac{b^2 + x^2}{(b-c)(b-a)} + ab \cdot \frac{c^2 + x^2}{(c-a)(c-b)}.$$

4. Solve the equations:

$$.15x + .2 - .875x + .375 = .0625x - .1.$$

$$4089x^2 - 9778x + 4089 = 0.$$

$$(3 + \sqrt{x})^2 + (4 - \sqrt{x})^2 = (7 + 2\sqrt{x})^2.$$

$$\left. \begin{aligned} x^2 + xy^2 + y^2 = 52 \\ xy - x^2 = 8 \end{aligned} \right\}.$$

5. There are four numbers such that if each be multiplied by their sum the products are 252, 504, 396, 144; find them.

6. Find the sum of n terms of a series in G. P.

$$\text{Sum } \sqrt{\frac{2}{3}} + \sqrt{\frac{2}{3}} + \frac{2}{3}\sqrt{\frac{2}{3}} + \dots \text{ to } n$$

terms and to infinity.

If a, b, c be the $p^{\text{th}}, q^{\text{th}}, r^{\text{th}}$ terms of a G. P., then $(q-r) \log a + (r-p) \log b + (p-q) \log c = 0$.

7. Obtain $\sin 30^\circ, \cot 45^\circ, \cos 15^\circ, \sin 75^\circ, \cos 36^\circ$.

8. Given the sides of a triangle, find its area.

In an equilateral triangle the distances of a point within from the three angular points are $7\frac{1}{2}, 10, 12\frac{1}{2}$ yards; find the area of the triangle.

9. In any triangle prove:

$$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}.$$

$$c = a \cos B + b \cos A.$$

$$\cos A = \frac{b^2 + c^2 - a^2}{2bc}.$$

$$\tan \frac{1}{2}A \tan \frac{1}{2}B = \frac{a+b-c}{a+b+c}.$$

PROBLEMS IN ARITHMETIC,

by W. S. Ellis, B.A., Mathematical Master, Collegiate Institute, Cobourg.

I. Define the terms, sum, number, unit, quotient, abstract number.

II. Shew that a fraction is a number. If $\frac{2}{3}$ contains 5 units, what is the value of each unit in relation to the unit of our common system?

III. It is said that we cannot multiply together numbers of different denominations (e. g. 5 sheep and 8 tons of coal multiplied would be nonsense). How then is it possible to multiply 8 hundreds by 5 tens and obtain

a correct result? Again, $\frac{1}{2}$ and 12 are numbers of different denominations, yet their product can be found. Why?

IV. In the cases in the previous problem, if the sum be taken instead of the product can a solution be obtained? Explain.

V. When a penny will buy $1\frac{1}{8}$ eggs, what is the price of eggs per dozen, in cents?

Ans. 12 cents.

VI. A man bought a Manitoba farm consisting of one quarter of a square mile, at \$15 per acre. He afterwards sold out of it a piece in the form of a square, one quarter of a mile on each side, for half the sum that he paid for the whole farm; how many acres did he sell, and what was the price per acre?

Ans. 40 acres at \$30.

VII. A clock gains 3 minutes and 15 seconds every 24 hours. A watch gains 8 seconds every hour. They are exactly together at six o'clock on Monday morning; when will there be a difference of one minute between the times marked by them, and how much will the clock then be too fast?

Ans. In 20 days, and 1 hr. and 4 min.

VIII. A railroad company agrees to carry wood for 1 cent per cord per mile for 50 miles, and for each mile beyond the 50 they are to get $\frac{1}{2}$ cent per cord. If they carried 250 cords for \$200, how far did they move it?

Ans. 80 miles.

IX. A gallon is $\frac{1}{6}$ of a cubic foot. In what time will a pipe that empties $3\frac{3}{8}$ gallons per minute lower the surface of the water in a cistern 3 inches, the size of the cistern being 8 feet by 6 feet?

Ans. $35\frac{3}{8}$ minutes.

X. The new Government map of Manitoba is drawn to a scale of 6 miles to the inch. What length of line on the map would represent one side of a "quarter section" of land, which contains 160 acres in the form of a square?

Ans. $\frac{1}{2}$ inch.

XI. There are three numbers such that the product of the first and second is 456, the product of second and third is 744, and product of first and third is 589. Determine the numbers.

Ans. 19, 24, 31.

XII. A wholesale merchant's terms are 10 per cent. off for cash at time of purchase, 5 per cent. off for cash paid at any other

time within three months, and 8 per cent. per annum interest added to all debts that overrun 3 months, interest to count from time of purchase. A dealer buys from this man goods amounting to \$560 on January 20th. He pays at the time of buying \$117, and on March 1st \$76. For what sum must a 3 months note be drawn on July 20th, bearing interest at 12 per cent. per annum, so that when it is discounted at the bank at the rate of 8 per cent. per annum, the proceeds will just settle this account; no days of grace? *Ans.* \$360.61.

XIII. A note for \$875, bearing interest at 6 per cent. per annum, is dated January 1st, 1881. The following sums are endorsed on it as paid: July 1st, '81, \$200; Oct. 1st, '81, \$150; March 1st, '82, \$250. The person owing it wishes to redeem it on July 1st, '82, and in order to do so, makes a new note on that day, bearing 8 per cent. interest per annum for such a sum that when it is at once discounted at the bank at 10 per cent. per annum for one month, the proceeds will just take up the old note; what was the face of this second note, reckoning simple interest, and no days of grace? *Ans.* \$331.82.

XIV. In the previous problem, if you find amount of \$875 on July 1st, 1881, subtract \$200, find amount of remainder on Oct. 1st, and so on, your answer will be different from what it will be if you find amount of \$875 for whole time; then find the amounts of the several payments until July 1st, 1882, and subtract. Why is this difference? Which solution is the correct one as the problem is worded?

Ans. In the first case you are using compound interest. The last solution is correct.

XV. A man succeeded in insuring his house for $\frac{1}{4}$ of its value at 3 per cent. and then burned it; but the company retained \$400 of the insurance money. On this account the owner of the house suffered a loss on both property and premium of \$170; find value of house. *Ans.* \$1082.35.

XVI. There is a square lawn containing one acre, and about its centre is constructed a circular pond whose area is 100 square

yards; find the length of the shortest line that will stretch from the edge of the pond to the edge of the lawn. *Ans.* 29.14 yds.

XVII. The adjacent edges of a square pyramid are at right angles to one another, and each is 10 inches in length. What is, 1st, the area of the base? 2nd, the altitude of the pyramid?

Ans. 1st, 200 sq. yds.; 2nd, 0.

XVIII. In the previous problem interpret the second answer. Can you account for it geometrically?

XIX. A farm is bought for \$8000 and then sold so as to make 8 per cent. on the selling price; what was this price?

Ans. \$8695.65.

XX. An article is bought and then sold so as to make 12 per cent. on the selling price; what gain per cent. is this on cost?

Ans. $13\frac{1}{3}$ per cent.

If the gains were changed to losses, other conditions remaining the same, what would be the answer? *Ans.* 10 $\frac{1}{2}$ per cent.

XXI. There is an estate of 560 acres, but 200 acres of it, being of poorer quality than the rest, only rents for two-thirds as much per acre as the remainder rents for. \$800 per annum of the rental is expended in improvements, and the rest of the income is subject to a tax of $1\frac{1}{2}$ per cent. The clear income is then \$1250; find the prices per acre paid for the lands.

Ans. \$2.80 and \$4.20 nearly.

XXII. A company earns during a year \$85000. Out of this a sum of \$17000 is reserved; a dividend of 6 per cent. is paid on \$450000 of first preference shares, a dividend of 5 per cent. on 280000 of second preference shares, and 3 per cent. dividends on the remaining stock of the company; find the whole stock. *Ans.* \$1630000.

XXIII. It is between 2 and 3 o'clock, and the hands are equally inclined to the vertical, on opposite sides of it; when will they next be equally inclined to the vertical on opposite sides of it? *Ans.* 55 $\frac{1}{4}$ '.

XXIV. At what times between 1 and 2 o'clock are the hands equally inclined to the vertical, on the same side of it?

Ans. 5 $\frac{1}{4}$ ' and 23 $\frac{1}{4}$ ' past 1.

XXV. A debtor agreed to pay \$350 per annum for 4 years, beginning January 1st, 1880. He, however, neglected to pay the first two instalments, but on January 1st, 1882, he paid a sum which cancelled the whole debt (four payments); calling money worth 5 per cent. per annum, what was that sum? *Ans.* \$1436.708.

XXVI. A mass of copper in the form of a square pyramid, each face of which is an equilateral triangle, contains $\frac{256\sqrt{2}}{3}$ cubic inches; find its dimensions.

Ans. 8 inches each way.

MODERN LANGUAGES.

JOHN SEATH, B.A., ST. CATHARINES, EDITOR.

ENGLISH.

Papers on English Literature.

PARKHILL HIGH SCHOOL—WEEKLY EXAMINATION, APRIL 6TH, 1882.

“But times are alter’d; trade’s unfeeling
train
Usurp the land, and dispossess the swain:
Along the lawn, where scatter’d hamlets
rose,
Unwieldy wealth and cumbrous pomp re-
pose;
And every want to opulence allied.
And every pang that folly pays to pride.
Those gentle hours that plenty bade to
bloom
Those calm desires that ask’d but little
room,
Those healthful sports that graced the
peaceful scene,
Lived in each look, and brighten’d all the
green;
These, far departing, seek a kinder shore,
And rural mirth and manners are no
more.” 74

—*Goldsmith’s “Deserted Village.”*

I. (a) “Times are altered.” Quote the lines showing the condition of England in former times. (b) Criticise the correctness of the epithets—“unfeeling,” and “kinder.” (c) Explain the meaning of “cumbrous pomp” (l. 66), “allied,” “manners.” (d) Parse fully—“usurp,” “bade,” “but” in

l. 70. (e) What mannerisms of Goldsmith are seen in the extract? (f) What are the two chief figures in the extract? What figure in “repose?” Point out any other figure. (g) Derive “lawn” and its homonym, “hamlets,” “pomp,” and “kinder.” (h) Distinguish “rural” from “rustic.” (i) Quote lines from the “Deserted Village,” containing similar sentiments to ll. 64, 73.

2. Among Goldsmith’s friends were Johnson, Reynolds, Burke, and Garrick. What influence would each exert on the writings of the poet?

3. (a) Was Goldsmith *idealistic* or *realistic*; *objective* or *subjective*? (b) Give examples from “Deserted Village” in support of your answer. (c) Define these terms.

4. (a) In what metre is the “Deserted Village” written? (b) Point out any deviations from it in the above extract.

5. Give examples from the “Deserted Village” of (a) “Imitative Harmony.” (b) “Imperfect Rhyme.” (c) “Poetic License.” (d) “Antithesis.”

6. Quote from “Deserted Village”—(a) The simile at the close of the description of the village parson. (b) The lines written by Dr. Johnson. (c) The Apostrophe to Luxury.

7. Point out (a) the *excell. ’es* and (b) the *defects* of Goldsmith’s style.

COLLINGWOOD COLLEGIATE INSTITUTE—
WEEKLY EXAMINATION, MAY 5TH.

I. Into what errors in theories, facts and modes of description has Goldsmith fallen in the “Deserted Village?”

II. State the plan of the “Deserted Village,” and inquire how far any general plan may be traced in the “Task,” and what part of it is developed in the “Garden?”

III. Describe, after Goldsmith, the village inn; and after Cowper, the management of a greenhouse.

IV. Point out any particular in which the views of Goldsmith and Cowper, as expressed in the “Deserted Village” and the “Garden” are coloured by the circumstances of the poets’ lives.

V. Compare the “Deserted Village” and

"Task" as to (a) subjects, (b) poetic diction, (c) moral tendency.

VI. What injuries does Mr. *Spectator* think are done to a country by party spirit?

VII. Give the meaning of the following: (a) tyrant's hand, (b) day's disaster, (c) mantling bliss, (d) blazing square, (e) convex world, (f) soliciting, (g) wielded the elements, (h) compose the passions, (i) crape, (j) conversation, (k) indifferent, (l) first principles, (m) landed and moneyed interest, (n) converses very promiscuously, (o) the two coronation chairs, (p) a face of magistracy, (q) the late act of parliament.

VIII. Give the substance of Sir Roger's remarks on the play he witnessed.

IX. Was Sir Roger superstitious? Give reasons for your answer.

ST. CATHARINES COLLEGIATE INSTITUTE
—MAY EXAMINATIONS.

1. Write out the substance of Addison's remarks on the effects of superstition.

2. What were Addison's objects in writing for the *Spectator*? Show, from the essays you have read, how far he has carried out his design.

3. What do you mean by humour? Refer to five marked illustrations of Addison's humour.

4. Sketch the character of Sir Roger as portrayed by the *Spectator*.

5. Describe, after Cowper, "domestic life in rural leisure passed."

6. State and criticise Cowper's views as to the pursuits of "sober dreamers."

7. Show how far Cowper's life influenced the subjects and character of his works.

8. Describe, after Goldsmith, Auburn in prosperity and Auburn in decay.

9. Quote passages from the "Deserted Village" and the "Garden"—one from each—in which the authors refer to themselves.

10. Compare the "Deserted Village" and the "Garden" under the following heads:—(1) Style, (2) Subjects and treatment thereof, (3) Versification, and (4) Arrangement.

How far does your answer illustrate the differences between the periods in which they were written?

CLASSICS.

G. H. ROBINSON, M.A., WHITBY, EDITOR.

NOTE.—All communications upon School Work in this Department must be sent to the Editor of it, not later than the 5th of each month.

LATIN GRAMMAR PRAXIS.

Selected from London University Examination Papers.

I.

1. Decline in full, *brevius iter, acer canis, fugax cervæ, jus avile, æstuans fretum, vis ingens, dulce mel, vecors indoles, puerilis lusus, stratum cubile, celebrator, vilis plebs, illud vetus vinum, aestriplex, nudum latus, utraque trabs, unus iners bos, omne mare, majus aes aelienum, hoc ipsum ver, sacrum foedus, audax facinus, tuior portus, senex quidam integer, qui idem carcer, molle illud siler, eadem diligens materfamilias, unusquisque iniquior iudex.*

2. Give dative singular and plural of *caro, corpus, ebur, mas, merx, obses, pecus, unus, cadaver, culter, imber, lis, murus, olus, pellis, pollex, senex, stipes.*

3. Give the genitive plural of *aper, artus, canis, carcer, crus, dens, iter, mons, os, vigil, virgo, vis.*

4. Nominative plural of *appendix, aries, conjux, crus, incus, neuter, paries, tellus, trux, ultus, vultur.*

5. Compare *sitis, diu, male, cito, facile, saepe, vafre, breviter, mature, nuper, parum, nullum, magis.*

6. Give adverbs from *hic, idem, ille, aliquis*, expressing (1) of motion to a place, (2) motion from a place, (3) in a direction.

7. Give the perfect and supine and infinitive of *domo, edo, egero, jubo, meto, nitor, texo, torreo, veneo.*

8. Give comparative and the superlative of *antiquus, degener, gracilis, ingenuus, pius, maturus, senex.*

9. Imperative mood of *astipulor, patior, profiteor* in full, also perfect and supine of *adimo, ciedo, deleo, extinguo, fulcio, digno, horreo, injicio, juvo, lino, necto, aufero, offero, pario, pingo, rumpo, tero, veto, voveo.*

II.

1. Define a supine, showing the mode of declining it, and illustrating its construction by examples. How do the Romans express the future infinitive passive? Give an instance with a feminine noun.

2. Decline throughout *ipse, tu, idem, uterque, quisquam*.

3. Write down the perfect tenses, active and the passive participles of *retundo, percello, reperio, oculo, discerno, cresco, obruo, percipio*.

4. Give the cases which the following verbs respectively govern:—*suadeo, potior, fruor, utor, invideo, memini, obliviscos*.

5. Give the perfect active (first person) and the supine of *reperio, retundo, secerno, discindo, desino, illino, percello, diruo*.

6. Decline throughout *aliqui* and *ille*, pointing out any differences (in sense or inflection) in *aliquis* and *iste*.

7. Write down all the tenses in use of *inquam* and *ait*.

8. From what verbs do you deduce *ultus, adultus, cretus, versus, stratus, occultus, ademptus, tutus, factus, passus*? Do any of these forms belong to more than one verb?

9. Give the comparatives of *juvenis, senex, dives, celer, magnificus, vetus*.

10. Show how *possum, nolo, malo, nequeo* are compounded; and give the first person singular of the present subjective and of the future indicative of each.

11. Write down the genders and genitives of *pus, mas, vas, praes, lis, ōs, ōs, nex, femur, linter, glomus, adeps*.

12. Give the first person pf. active of *desino, haurio, laccesso, sepelio, nubo, prandeo,*

and the supines of *edo, como, signo, tero, pertundo, constringo, explico, texo*.

13. What cases are used in construction (1) with the verbs *egreo, metuo, suadeo, ignosco, reminiscor, potior, rogo, caveo*; and (2) with the adjectives *avidus, experts, tenax, immemor, dignus, similis*.

14. Distinguish between singular and plural of *hortus, gratia, aqua, carcer, tabula, castrum, sal, impedimentum, auxilium*.

15. Point out the errors in and correct the following sentences:—*Urbs non parcenda est; nuntius haud creditus est; nescio uter est; missus est explorare viam; quid me fiet paroum facio ninemi exim, interest*.

16. Decline throughout: *media urbs, reliquum opus, domus interior, aper nemori-vagus*.

17. Compare: *iners, ater, nequam, facilis, dico, malo, prope, vafre*.

18. Write down the first person singular of the first and second future tenses of *absum, abeo, cresco, caveo, fio, morior, queror, reor, sino, melior, haurio, jodio, jarcio, sequor*.

19. Write down the adjectives formed from *aurum; aes; argentum; nix; bos; flos; lutum; corpus; spartium; onus; lacrima; quercus*.

20. Distinguish between *alius, alter; illic, illac, illinc; quando, aliquando, quandoque; inde, istine; quattuor, quater, quaternus, quartus, quartarius, quadrinius*.

21. Give the diminutive forms of *ager, codex, corona, dies, flos, frater, ignis, lapis, liber, labrum, pars, signum*.

22. Give instances of substantives defective in case or defective in number; and name six nouns which employ their plural in a special sense.

FOR THE LOQUACIOUS.—Be economical in the use of your mother-tongue. Apply your terms of praise with precision; use epithets with some degree of judgment and fitness. Do not waste your breath and highest words upon inferior objects, and find that, when you have met with something which really is superlatively great and good, the terms by which you would distinguish it

have all been thrown away upon inferior things—that you are bankrupt in expression. If a thing is simply good, say so; if pretty, say so; if very pretty, say so; if fine, say so; if very fine, say so; if grand, say so; if sublime, say so; if magnificent, say so; if splendid, say so. These words all have different meanings, and you may say them all of as many different objects, and not use the word “perfect” once.

SCHOOL WORK.

SAMUEL McALLISTER, TORONTO, EDITOR.

NORTH HASTINGS UNIFORM PRO-
MOTION EXAMINATIONS.**Entrance to Junior Third Class.*

ARITHMETIC.

Full marks to be given for correct solutions only. Not more than 50 per cent. of marks to be given for correct method without correct answer.

I. Add ten, fifty thousand and eight, two hundred and four, nine hundred and seven thousand and seventy, five thousand and nine, four, three hundred and three thousand and three.

II. Multiply the difference between nine hundred and eighty-six thousand five hundred and seventy-seven and one million by eight thousand and seventy.

III. A farmer sells the following articles: 66 eggs at 10 cts. a dozen, 14 ducks at 30 cts. a pair, 17 pounds of butter at 18 cts. a pound, and 66 pounds of cheese at 11 cts. a pound. In payment he gets \$5.86 cash, and the balance in sugar at 11 cents: how many pounds should he receive?

IV. When two numbers are multiplied together we get 614191113271; one of the numbers being 879, what is the other?

V. Divide 345763 by 72 by factors.

VI. Find the value of $3050 + 67 + 76494 - 64001 + 50050 - 30205$.

VII. John has \$84, Henry has \$173, Robert has \$18 less than what John and Henry together have, James has \$103 more than the difference between John's and Robert's money, and Simon has nine times as much as all of the others; how much money have the five men got?

* Forwarded for publication in the CANADA EDUCATIONAL MONTHLY, by the courtesy of Mr. Wm. Macintosh, I. P. S., Madoc.

SPELLING.

Read very distinctly, and give necessary explanations. Four marks to be given for each number correctly spelled; nothing given for numbers in which any errors are made. Writing is to be judged from this paper.

1. Edith laid a pin-cushion on the table.
2. Going into their aunt's room.
3. I don't know that he was mayor of Belleville.
4. In the depths of the dark blue sea.
5. Prettily. A tiny coral isle.
6. Beneath Thine own almighty wings.
7. I, ere I sleep, at peace may be.
8. Tortoise, perceive, believe.
9. Sure to succeed; herbs and flowers.
10. Sieve, seize, cease, wistful eyes.
11. Mighty jerk, woful case.
12. Deseronto, Moira, Stirling.
13. Almost stifed, clothed in complete armor.
14. Sword, shield, psalms.
15. Wrote the following epitaph.
16. Their poultry, gentleman's cloak.
17. Joke, gaily, honest.
18. The scene which he had seen.
19. Henry sighed. The pain in his side.
20. Nephew, assistance, biting.
21. Break all the basins.
22. A weary traveller would grieve to lose it.
23. Henry, Wednesday, Christmas.
24. Those who heed his treacherous wooing.
25. Tough, dough, plough, thought.

READING.

Re-write the following, for italicized expressions using their meaning. Answer the questions. Four marks for each number. Marks should be deducted for bad spelling.

1. She began to see the *results* of her *labour*.

2. She felt *inclined to seize* any good thing.
 3. Little bosoms (should) throb to do what the Lord will please. What does this mean?
 4. To *correct* her faults.
 5. Their father's *will* was read.
 6. God will not *fail* to *mark* your neglect.
 7. Dearly she loved to *ponder* it o'er.
 8. *On this account* the king made a wicked law.
 9. "In storm and in sunshine, whatever assail,
We'll onward and conquer, and never say fail."
- Re-write the above in your own words.
10. *Expressive of her belief* in the fact.
 11. "Teach me to live that I may dread
The grave as little as my bed."
- Explain this in your own words.
12. Write the first verse of "The Evening Hymn."
 13. I *perceive* that he is not to be *depended on*.
 14. What should we learn from the lesson about "The Lark and its Young Ones?"
 15. I *really* cannot *manage* to go.
 16. She knew not *whither* he was gone.
 17. *Presently* he left them and went away.
 18. He fled to his *glen* in *dismay*.
 19. This *attracted the notice* of the men.
 20. *Courage* and *presence of mind* were then much needed.

—

Entrance to Senior Third Class.

ARITHMETIC.

Only *correct* solutions should be awarded full marks. Not more than 50 per cent. of the full value should be given for a correct method when the answer is incorrect. Neatness should be noticed.

I. Multiply 705929 by 40090, and divide the result by 8493.

II. Define product, quotient, factors of a number, Arabic notation, reduction, denomination.

III. Write the tables of avoirdupois weight, long measure, Troy weight, time measure and dry measure, omitting denominations not used in Ontario. *Do this neatly.*

State *carefully* the uses to which avoirdupois weight, Troy weight and long measure are applied.

V. How many cords of wood at \$5½ a cord will pay for 50 hogsheads of sugar at \$44 a hogshead?

VI. A grocer bought 120 turkeys at 3 for \$2, and sold them at 15 for \$17; how much did he gain?

VIII. In 17543 ounces of butter how many tons, cwts., lbs. and ozs. are there?

IX. In 1453241 inches how many miles, rods, yards, etc.?

X. How much butter at 18 cents a pound should be given for 45 pounds of sugar at 15 pounds for \$1.20?

READING.

Re-write the following, for italicized expressions using their meanings. Answer the questions. Five marks for each number.

I. One cannot *fail* to be struck with *admiration* on visiting *the haunts* of the beaver.

II. *At the head of animal creation.*

III. If half *humanity* were as *intelligent*, as *provident*, as *laborious*.

IV. Water is the only *medium* he can use.

V. *Distaste* to its *thraldom*.

VI. *Exposed themselves to great straits.*

VII. A strong *faculty* for *statuary*.

VIII. An *effective* dish, *capable of producing a sensation*.

IX. *Clinging* with the *tenacity* of a drowning man.

X. She thought of Him who stilled the waves on the Lake of Galilee. Relate the incident to which reference is here made.

XI. What lessons can be learned from the stories of "Boots and his brothers," and "The lost camel?"

XII. *Famed* for his *talent* in *nicely discerning*.

XIII. *In behalf* of the nose it will quickly appear.

XIV. *Appreciate their privileges.*

XV. *Pursuing a liberal course of study.*

XVI. Who drag themselves to it as an *intolerable task*. In re-writing the extract supply any words, after "as," which are necessary to bring out the full meaning.

XVII. We'll sing at St. Anne's our parting hymn. What and where is St. Anne's?

XVIII. *Apparently* with the *view* of warning him of *impending danger*.

XIX. *Elate with flattery and conceit.*

XX. Write the first stanza of "Better than gold."

GRAMMAR.

I. "I have heard of a beautiful ball which floats in the sweet blue air, and has little, soft, white clouds about it as it swings along. There are many charming and astonishing things to be told of this ball, and some of them you shall hear."

NOTE.—The words in the above extract are to be classified and reasons given for the classification, thus:—*Are* says something about *words*, therefore it is a *verb*; *in* shows the relation between *words* and *extract*, therefore it is a *preposition*.

II. Write sentences containing the following words:—river, dog, comes, black, shrieked, faint, above, their, there, boy's, minuend, seen, hidden, did.

III. Draw a line under each subject in these sentences, and a double line under each predicate.

GEOGRAPHY.

I. Define volcano, desert, channel, oasis, water-shed, basin of a river, mountain range.

II. Sketch an outline map of North America, showing the course of the following rivers, the boundaries of the countries, and the positions of the following lakes, peninsulas, etc.:—St. Lawrence, Superior, Michigan, Huron, Erie, Ontario, St. Clair, Champlain, Great Salt, Ottawa, Mackenzie and Peace; Winnipeg (lake), Great Bear, Lake of the Woods, Saskatchewan, Red River, Mississippi, Missouri, Rio Grande, Colorado, Florida, Yucatan, Cape Farewell, Sable, Hatteras, Mendocino, Vancouver, Montreal, Toronto, Victoria, Halifax, New York, New Orleans, Chicago, San Francisco, Rocky Mountains, Alleghany, Columbia (river).

III. What do you understand by the sea level? Which is higher above the sea level, Toronto or Belleville? Give reasons for your opinion.

IV. What and where are the following:—Boston, Emerson, Assiniboine, New Orleans, St. John, Victoria, Juan de Fuca, Galapagos, Joannes, Hatteras, Brazos, Sicily, Sumatra, Japan, Horn, Torres?

SPELLING.

Read very distinctly. Give *necessary* explanations. Four marks for each number correctly spelled; nothing to be given for a number in which *any* errors occur. Writing is to be judged from this paper.

1. Slighting ancient foot-marks.
2. He set off in pursuit of the thief.
3. Pursuing a liberal course of study.
4. Encountered some rough weather.
5. Similarly, scythe, separate, rouse.
6. Conceived a new and original method.
7. Character, soap, soup, hearth.
8. The bowl was broken in the row.
9. Suddenly divined his apparent meaning.
10. A most Christian vengeance.
11. Determined to follow a system of management.
12. Dumb, grateful, roost.
13. She sent Henry with ten cents for some scent.
14. As confiding an assurance.
15. He accompanied them to more southern regions.
16. Merely straightened his plumes.
17. To search the balm in its odorous cell.
18. Guide, height, gilt, frame.
19. Received more injuries than a few bruises.
20. Fought desperately, hoarse.
21. Frightened away by a guilty conscience.
22. Whole trees are gnawed down.
23. The diameter of an ordinary stove-pipe.
24. Winnipeg, Manitoba, British Columbia.
25. It was evident his flight was impeded.

Entrance to Junior Fourth Class.

GEOGRAPHY.

I. Define isthmus, strait, peninsula, island, bay.

II. Name (in order), commencing with British Columbia, the provinces and territories of the Dominion of Canada; name the capital and principal towns and cities of each, and state where each town and city you have named is situated.

III. Name the countries that border on the Baltic Sea.

IV. What mountain ranges would you cross in a journey from Vienna to the Bay of Biscay, going by way of Berne and Lyons?

V. Describe a trip by water from Belleville to Quebec, naming the large towns, etc., near which you would pass.

VI. Where are the following:—Straits—Gibraltar, The Sound, Malacca, Behring, Northumberland. Islands—Corsica, New Zealand, Vancouver, Japan, Sicily. Rivers—Obi, Ganges, Danube, Niger, La Plata. Towns—Bombay, Alexandria, Liverpool, Birmingham, Philadelphia?

READING.

Re-write the following, using equivalents for italicized expressions. Answer the questions.

I. From *time immemorial*.

II. A Frenchman of *elegent address*.

III. He *manifested* the pleasure he *experienced* in a manner *singularly enthusiastic*.

IV. With *frantic gestures appealing for aid*.

V. Write the last two stanzas of "Twenty Years Ago."

VI. Express in prose the ideas contained in these stanzas.

VII. Relate briefly the story upon which the poem of "Beth Gelert" is founded.

VIII. *Bereft* of every earthly *gem*.

IX. The tempter's *wiles* their souls from *bliss* may *sever*. Who is here called "the tempter?"

X. Write sentences containing the following words:—*sear*, *contemporaries*, *emotion*, *reflect*, *seen*, *pernicious*.

XI. I could not but look upon these *registers of existence* as a kind of *satire* upon the departed. What are here called *registers of existence*? Why?

GRAMMAR.

I. Define sentence, subject, predicate, predicate adjective, transitive verb, co-ordinate conjunction, gender, number, comparison, participle, tense.

II. Name the modifiers of the subject.

III. Name the modifications (inflections) of the noun, pronoun and verb.

IV. Give the plural of leaf, lady's, story, money, potato; the masculine of spinster, duchess, czarina, belle; and the objective plural of I, thou, thine, me, her, who.

V. Analyze (giving subject, complements, verb, complements of verb):—

1. *In the hereafter* angels *may*
Roll the stone from *its* grave *away*.

2. *Clad* in a robe of everlasting snow, *M*
Everest towers above all other mountain
peaks of the globe.

3. *On her* white breast a sparkling cross
she *wore*.

VI. Parse the italicized words in the extracts in question V.

ARITHMETIC.

Full work must be given. Only solutions correct as to method and answer are to receive full value. For correct work without a correct answer not more than 50 per cent. of the full value should be given.

I. Write four multiples of each of the following numbers:—25 and 16.

II. Define accurately—factor, H. C. F., L. C. M., a fraction reduced to its lowest terms.

III. A degree is 69 miles, 53 rods, 2½ feet long; how far from each other, in miles, etc., are two places which are 32 degrees apart. (Use factors.)

IV. A farmer owns 640 acres, 142 sq. rods, 29 sq. yards of land; he has under cultivation 9 fields, each containing 9 acres, 23 yards, and 28 fields, each containing 14 acres, 139 rods, 19 yards: how much land (in acres, etc.) has he uncultivated?

V. By what must 7 miles, 245 rods, 15 feet be multiplied to give 133 acres, 3 yards as product?

VI. Find the total cost of 59 eggs at 11 cents a dozen, 347 pounds of hay at \$14 a ton, 39 feet of lumber at \$9 a thousand, and a pile of wood 25 feet long, 9 feet high, and 4 feet wide at \$2 a cord.

VII. What is the weight of £100,000 worth of gold in pounds avoirdupois, if 1 ounce Troy be worth £4 5s.?

VIII. If I own three-fourths of four-fifths

of two-thirds of a ship worth \$20,000, and sell one-fourth of the ship, what will the part I have left be worth?

SPELLING.

The examiner will please read very distinctly, and give all necessary explanations. Four marks are to be given for each number. One error destroys the number. Writing is to be judged from the last three numbers of this paper.

1. Discreeter grown, rebellion.
2. A perilous adventure befell him.
3. Worshipped such deities.
4. Loading and firing his rifle.
5. Appalling, murderous, ceased.
6. A miniature crimping machine.
7. The ship *Indian*, of London.
8. Scorpion, lizard, partridge, decision.
9. Cunningly curled, balance.
10. Stored in artful cells their luscious hoard.
11. Plied their paddles desperately.
12. Heroism, catastrophe, a plait of hair.
13. Calmly he renewed his orders.
14. The fowls were bred on bread made of rye.
15. Vancouver's Island, senate, carrot.
16. Double-barrelled, parish, satin.
17. Somé cordial, endearing report.
18. Moccasins for the feet.
19. Wild as zebras, frolicsome as kittens.
20. Arctic seaman, widow, sterile.
21. Of course, he is coarse in his speech.
22. Do not lie in the lye.
23. A ho'de of gypsies with a hoard of money.
24. The heifer is of great weight.
25. Model, salary, prophecy, profited.

Entrance to Senior Fourth Class.

SPELLING.

The examiner will please read very distinctly, and give all necessary explanations. Four marks are to be given for each number. One error to destroy a number. Writing to be judged from the last three numbers.

1. Published an exaggerated account.
2. Chiefly the workmanship of Esqui-maux.
3. An elegant, broad, gray feather.

4. Salvo of ordnance, hypocrisy.
5. Ships in the anchorage, colossal conceit.
6. Commodity of value, a docile cat.
7. His politics were of an accommodating character.
8. Helm no hauberk's twisted mail.
9. Independence, gentility.
10. Indomitable, irresistible.
11. Murdered at Cape St. Roque.
12. No Lethæan drug for eastern lands, nor poison draught for ours.
13. Scilly. Sicily.
14. Constellation of Elysian isles.
15. Grammar, arithmetic, neuter.
16. Deseronto, Belleville, Marmora.
17. A saucer and a pair of scissors.
18. A sugar maple tree.
19. Hematite iron, wholly unsuitable.
20. He will cede to me the right to plant seed.
21. The Toronto and Ottawa Railroad.
22. Hon. Mackenzie Bowell, M.P.
23. Proceeding, preceding.
24. Untamable, susceptible.
25. Descendants, quarrelling.

READING.

Re-write the following, using equivalents for italicized expressions.

I. *Disseminated an exaggerated report of its natural attractions.*

II. Scarce wotting if alive but for the pangs they feel. Express this in your own words.

III. The river of their hope at length is drawing nigh. What is meant by the expression "river of their hope?"

IV. It is their *immunity* from danger amid these *mountain fastnesses* which thus *recruits* the waste.

V. His *sinuous* path by *blazes* wound among trunks whose *tangled architecture* *fraught* with many a shape *grotesquely wrought*.

VI. Reason forsook her shattered throne. What does this mean? Why is the word "throne" used?

VII. These *characteristics* were soon *swamped* by *accessions* from Massachusetts.

VIII. It was not until the *patent* had nearly *expired* that Sir Humphry, etc.

IX. The *disastrous attempt at colonization*.

X. The Maritime Provinces have extensive *coal measures*. Name these Provinces.

XI. *Rival the constellations*.

XII. Who were the United Empire Loyalists?

XIII. O spread thy mighty hand,
Gigantic grown by toil.

What fact makes the allusion in the last line very apt?

XIV. When the morning stars sang together. What time is meant?

XV. No Royal road to learning. What is meant by this?

GEOGRAPHY.

I. Sketch an outline map of Ontario, locating the Thames, Trent, and Mississippi rivers, Manitoulin Island, and the following towns and cities:—Peterborough, Port Hope, Ottawa, Perth, Hamilton, Collingwood, Goderich, Port Stanley, Brantford, Cornwall.

II. Name and locate the chief towns in New Brunswick and Quebec.

III. Name and locate the British possessions in Asia, America and Africa.

IV. What European countries border on the Mediterranean and North Seas?

V. What and where are—Rhine, Calcutta, Cape Town, St. Roque, Cuba, Winnipeg, Egypt, Alps, Torres, Aden?

VI. What causes led to the confederation of the Canadian provinces in 1867? Name these provinces. Name the remaining provinces of the Dominion in the order of their admission into confederation.

VII. What caused the war of 1812–1815?

GRAMMAR.

I. Define imperative mood, present perfect tense, strong verb, complex sentence, relative pronoun, case.

II. Name and define the various classes of subordinate statements.

III. Correct where necessary, *giving reasons*:—

1. Who does this coat belong to?
2. I do not know whom they were.
3. My book is larger than your's.
4. I bought it of Mrs. Wilson; she who keep the shop.
5. Every one should have their lives insured.
6. He has seen me.
7. Jane has came to school.

IV. *She is far from the land where her young hero sleeps,*
And lovers around her are sighing;
But coldly she turns from their gaze and weeps,
For her heart in his grave is lying.

1. Analyze fully.
2. Parse the words in italics.

V. Give the third singular of the verbs *sing* and *see*, in each of the tenses of the indicative mood, active voice.

ARITHMETIC.

Full work must be given.

I. Simplify

$$\left\{ \frac{17\frac{1}{2} + 13\frac{3}{4}}{14\frac{1}{2} + 3\frac{1}{8}} - \frac{12\frac{1}{2} - 11\frac{1}{2}}{13\frac{3}{4} - 12\frac{1}{2}} \right\} \div 1\frac{1}{2}\frac{1}{2}$$

II. Find the total cost of 314 pounds of wheat at \$1.12 per bushel, 258 pounds of barley at 85 cents per bushel, 1257 pounds of hay at \$14 per ton, 25 planks, averaging 11 inches in width, 13 feet long, and 2½ inches thick, at \$9 per 1000 feet.

III. Find the value of

$$\frac{2.8 \text{ of } 2.\dot{2}\dot{7}}{1.1\dot{3}\dot{6}} + \frac{4.4 \text{ of } 2.\dot{8}\dot{3}}{1.6 + 2.6\dot{2}9} \text{ of } \frac{6.8 \text{ of } 3}{2.25}$$

IV. *A* and *B* can do a piece of work in 2½ days, *B* and *C* in 2½ days, and *A*, *B* and *C* in 1½ days. In what time can *A* and *C* do the work?

V. How long must a pile of wood 12 feet wide and 11 feet high be, so that, at \$2.25 per cord, it may cost \$40.50?

VI. Find the L. C. M. of $\frac{1}{2}$, $\frac{2}{3}$, $\frac{3}{4}$, and $\frac{4}{5}$.

VII. Express .75 of £16 12s. 8d. as a decimal of £14 17s. 6d.

EXAMINATION IN ARITHMETIC.

THE accompanying method of testing the accuracy of the work of pupils in arithmetic has been found very useful in the Inspectorate of East Victoria. The object is to ascertain what proportion of the pupils can do correctly the work that they have gone over, rather than to find out how far on they are in the book. Two columns are ruled for each class. The first column is for the number of pupils who try the question; the second column is for the number who get the right answer.

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ARITHMETIC.	Class I.	Class II.	Class III.	Class IV.
Addition				
Subtraction				
Multiplication.....				
Division				
Numeration				
Reduction.....				
Compound Addition.				
Compound Subtr'n...				
Compound Multip'n..				
Compound Division.				
Fractions, Addition..				
Fractions, Subtr'n...				
Fractions, Multip'n..				
Fractions, Division..				
Decimals				
Problem, Wood				
Problem, Hay.....				
Problem, Wheat				
Problem, Carpet.....				
(.....per cent.).....				

The usual plan is to range the pupils on the floor at the side of the room and near the blackboard. The first question is set on the blackboard, and the number in each class who try the question is entered in the proper

column. The pupil who gets done first is directed to pass up to a spot indicated by the examiner, and the rest to pass up as they finish the work. The distance between those who have done and those who have not will depend on the size of the class—the smaller the class, the less the distance. The examiner begins to examine the first slate as soon as ready. If right, the pupil moves up a little further; if wrong, he retains his place. The other slates are examined in the same way—those who are right going up, those who are wrong retaining their places, or pass down to make room for those that are right. As soon as the last slate is examined, the number correct must be inserted in the proper column. If necessary, the examiner may require the pupils in the respective classes to raise the hand thus: "as far as this," pointing to the last pupil who was right; "Third Class, raise hands;" "Hands down;" "Second Class, raise hands," and so on. Then "Clean slates." The slates when clean are to be placed under the left arm without word of command. When all the slates are properly placed, "Face," "Forward," "Front." The class will then be in the same position as at commencing, except the places changed. At the word "Forward," those in front should move slowly, and those behind faster, so as to fill up the spaces. Clean the blackboard, set down the second question, and proceed as before.

In a mixed school it is better to begin with the lowest work; for instance, addition with the First and Second Classes; in subtraction, call up the Third Class, and let those who think they cannot do the questions take their seats. Do the same with other questions, allowing those to take their seats who think they cannot do the work, and calling up higher classes from time to time. At the close of the exercise add the columns, find the aggregate of questions and the aggregate of correct answers, and take the percentage. The form may be varied to suit the requirements of the school. It may be written, printed, or struck off with the lithogram—*Communicated.*

TEACHERS' ASSOCIATIONS.

CHRONICLE OF THE MONTH.

SOUTH SIMCOE TEACHERS IN CONVENTION AT BECTON.—On Friday and Saturday, the eighth session of the South Simcoe Teachers' Association was held in the public school at Beeton. About fifty teachers were present, and the session was in many ways interesting and profitable. Business was commenced at nine o'clock, the president, Rev. Thos. McKee, I. P. S., presiding. After the minutes of the last meeting were confirmed, Mr. T. J. Atkins took up the subject of "Notation and Addition." This drew out some excellent remarks as to the manner of teaching these subjects. Mr. Wood, of the Bradford Model, explained a manner of using dots where a ball-frame was not available, the main object being the use of concrete numbers in beginning Addition, and strongly recommended the thorough teaching of the Addition table. The Question Drawer was duly opened and contents discussed. Some grammatical questions drew forth the warm advocacy of a few members in favour of their respective views, and Bain, Abbott, and Mason were wielded with a power which showed a close study of these authorities.

In the afternoon, Mr. C. W. Chadwick, Alliston, read an interesting paper on "Geography in Public Schools." This paper was so excellent, and so much in accord with the most approved methods of imparting instruction in this subject, that it provoked very little criticism. Miss Springer, of Lisle Public School, read an essay on "The Teacher as a Moulder of Character," which for easy and graceful flow of diction and careful thought, well arranged, is not often surpassed in one who does not follow the profession of authorship. A unanimous vote of thanks was tendered her by the Convention. A paper on "English Literature,"

by Mr. Williams, B.A., Col. Inst., Collingwood, was also considered worthy of a vote of thanks. Among many of the excellencies of this essay, was the advice to teachers not to remain at a standstill, but to take up some useful study and pursue it diligently. Of all the subjects which present themselves to a student, said he, none give more real pleasure and is at the same time so profitable.

In the evening, a lecture, "Leave to be Useful," was delivered in the court-house by Mr. G. Mercer Adam, editor *Canadian Monthly* and the CANADA EDUCATIONAL MONTHLY. The lecture, in substance, was too philosophical to be appreciated by a mixed audience, who always demand humour as the price of applause, but was very interesting to the teachers who heard it. A vote of thanks was tendered Mr. Adam, who is certainly, personally, and through the medium of his journal, a strong friend of the profession.

On Friday, Dr. Forrest discoursed on Grammatical Analysis, showing a close acquaintance with the best and latest writers. He elucidated some difficult points in the parsing of participles, and gave a system of marks to show the different relations which words bear to one another, which would greatly facilitate school work. Mr. E. Ferguson, Bradford Model School, on the subject "Copy Book and Commercial Writing," gave a clear exposition of his methods of teaching copy book writing successfully, of analysis of letters, criticism and correction of mistakes, exercises for acquiring a free movement, etc.; attributed the scribbling so prevalent among teachers to the habit of hurriedly taking down notes in our High Schools; and showed the importance of a good hand as a material factor in the decision, where a situation was to be ob-

tained, through a written correspondence. Messrs. Dickson of Hamilton, and Spotten of Barrie, were absent from unavoidable causes, and their subjects were consequently omitted. The following officers were elected for the coming year: President, Frank Wood. Vice-President, C. W. Chadwick. Sec.-Treas., J. C. Morrison. Committee—Dr. Forrest, T. McKee, E. Ferguson, and P. Hobson.

Cookstown was chosen as the next place of meeting.—*Bradford Witness.*

NORTHUMBERLAND.—A very successful meeting of the Northumberland Teachers' Association was held at Brighton on the 4th and 5th of May. During the short forenoon session general topics were discussed, and the following gentlemen were appointed a Committee on Resolutions:—Messrs. Sykes, Black, Dixon, Boyd, and Inspector Scarlett. At 2 p.m. the subject of "Geography" was introduced in an able essay by Mr. S. E. Dixon, followed by Mr. E. Hayward. Mr. R. K. Orr, B.A., next discussed the "Railways of Ontario." He referred to recent amalgamations, and described somewhat minutely the location and projected routes of several new lines of railway, in addition to tracing the older lines. Messrs. R. K. Orr, B.A., G. Dowler, E. Scarlett, I. P. S., and D. C. McHenry, M.A., were appointed a Committee on Text Books, and instructed to draft a resolution on the subject. "Discipline" was presented in an instructive address by the President, Mr. George Dowler, of Brighton, supported by Mr. Geo. Kirk, H. M., Model School, Cobourg. He dwelt mainly on the effect of suspensions and expulsions at the Provincial Model Schools as compared with other modes of punishment adopted throughout the Province. The Rev. T. Cullen, of Brighton, next offered an excellent address on the "Life and Work of the Rev. Dr. Egerton Ryerson." He was tendered the thanks of the Association, after which a resolution, moved by Inspector Scarlett, and seconded by Rev. T. Cullen, was passed by the Association, expressive of

the loss felt by the teachers of Northumberland in the death of Dr. Ryerson.

"Home Work" was presented in an admirable address by D. C. McHenry, M.A., who was tendered a vote of thanks, and requested to furnish a copy of his address for publication. Mr. E. Cochrane, Deputy-Reeve of Cramahe, referred to the multiplicity of authorized text books, and spoke in praise of the present mode of teaching as compared with the *old* method.

A public lecture was delivered in the evening, by Rev. R. H. Harris, of Brighton, on the subject of the "Relation of Public School Teachers to the State." The lecturer claimed that the future of this country depended largely on the character of its teachers, and advocated a more general and thorough education of the people on the broad basis of Christianity, as the best means of building up and strengthening the State.

Second Day's Proceedings.—On motion of Mr. Hayward, seconded by Mr. D. I. Johnston, a resolution was passed requesting the Inspector to take such steps as the law may allow, and may seem to himself advisable, to compel the attendance of teachers of this county at the Association meetings. The Committee on Text Books report the following: "In our opinion, our authorized Geographies should be revised, in order not only that much which they do not contain (our Canadian railways, for example) may be inserted, but also in order to afford an opportunity for the correction of numerous errors to be found in the maps and letterpress. We are also of opinion that our present Readers should be superseded by a new series at as early a date as possible." The report of the committee was adopted. "Practical Arithmetic" was introduced in an excellent paper on the subject by Mr. D. I. Johnston. The Question Drawer was opened by Mr. W. S. Ellis, B.A., B.Sc. He discouraged the practice of handing in questions of little or no general interest, involving lengthy mathematical solutions. Mr. Geo. Kirk disposed of the questions on Grammar. Dr. McLellan continued the subject of Arithmetic. He spoke for a short time on the importance of arith-

metic as a means of intellectual development. Mr. J. W. Black gave notice of a motion to deny the privilege of membership to persons convicted of supplanting another teacher, or of aiding, abetting, or in any way countenancing the same. After some further business, the Association adjourned, to meet again in October.

NORTH HASTINGS TEACHERS' ASSOCIATION.—This Association met in Madoc, May 18th and 19th. The minutes of last meeting were read and adopted, after which the report of Committee on Promotion Examinations was read and approved, and the action of the Committee endorsed. The printed regulations for the examinations were then adopted. Mr. Morton was appointed Delegate to the Provincial Association. Mr. Beall read an article from the *Century Magazine*, entitled "Hints on Reading." Miss Wootton taught a Primary Reading Class in a manner that could not fail to be instructive to those who saw and heard it. A short discussion on the subject followed. After a reading by Miss McDermid, Dr. McLellan introduced the subject of "Intelligent Teaching of the Simple Rules." He showed how to give ideas of numbers by presenting objects arranged so as to catch the attention. He then gave hints on the methods of teaching the simple rules, and dwelt at some length on the importance of the Unitary Method. Mr. Hicks introduced the subject of History, dealing with it generally. He called attention to the fact that the purpose in teaching this as well other subjects is to prepare the pupils to work for themselves.

In the evening, Dr. McLellan delivered an eloquent address on "Teacher and Parent in relation to the School" to a large and interested audience, who showed their appreciation of the lecture by frequent applause, and by a hearty vote of thanks.

On Friday, Mr. Mackintosh addressed the teachers on the approaching Uniform Promotion Examinations. After this he took up the subject of Grammar and Composition, giving many valuable suggestions as to the proper teaching of these important subjects. Mr. Jenkins then discussed the geography of North America, which he would teach by means of both map and map-sketch. After a short discussion, Dr. McLellan took up the subject of "Reading, and how to improve it." He dwelt on the importance of reading, and advised, in teaching it to beginners, to combine the phonic with the word method, and to analyze all simple words. The subject of School Management was discussed by Mr. Miller, who gave many valuable hints on the management of pupils both in the school and at home, dwelling specially on the necessity of getting the parents interested in the school. In the afternoon, after a reading by Mr. Hicks, Dr. McLellan discussed the subject of Good and Bad Questioning, giving examples of both. He spoke first of the objects of questioning, then the qualifications of the questioner, and lastly of the characteristics of good questions. Dr. Dafoe then gave a valuable address on Hygiene, for which he received the thanks of the Association. A reading by Miss Riddell followed, after which it was moved "That the thanks of this Association be tendered to Dr. McLellan, for his valuable assistance in making this a successful meeting." To this Dr. McLellan briefly replied.

This being the first meeting of the Association since the death of Rev. Dr. Ryerson, resolutions were moved expressive of the loss sustained by the Province and by Education in the death of Dr. Ryerson, "to whose wise conception and great administrative abilities the Province owes its unrivalled system of national education."

CONTEMPORARY LITERATURE.

CHAMBERS'S ETYMOLOGICAL DICTIONARY OF THE ENGLISH LANGUAGE; Edited by Andrew Findlater, M.A., LL.D. London and Edinburgh: W. and R. Chambers; Toronto: Rose-Belford Publishing Company. 1882.

THE work, of which the above is a new and thoroughly-revised edition, is too well known and appreciated to need any particular commendation at our hands. Considering its low price, there is no lexicon of the language that can compete with it, as a generally accurate and useful aid to the English student. The new edition is in many respects a great improvement on the previous one, particularly in the advantage taken by the new editor of the researches of recent scholars, French and German, and of the "new English school of philologists, who," as the editor says, "have done so much during the last twenty years to promote the historic and scientific study of our own language." The work, moreover, is much enhanced in value by the increased size of the type in which the new edition has been "set," and by the large addition to the book of a multitude of new words, scientific terms, etc. Another improvement will be found in the words following a strictly alphabetical order, instead of being grouped under the stem or root-word, as was the case in previous editions. Considerable useful matter, in the shape of appendices, appears in the new edition, and adds bulk and value to the book.

A notable feature of this work, and one that is more characteristic of the admirable dictionary of the late Rev. James Stormonth—the lexicon, in the opinion of the writer, *par excellence*, of the language—is the compilation of the compound and other derived words and phrases, grouped under the parent word, throughout the lexicon. This feature is happily enlarged in the present

edition, though it falls far short of Stormonth's work in the characteristic we have pointed out. To make our meaning intelligible, we will cite a few words from the present and earlier editions of Chambers' book, and also from the new one of Stormonth's. To take the inflected and compound words under the word "break," for example, we have in both editions of Chambers the following: Breakage, breaker, breakfast, and breakwater. The addition to these in the new issue are the following: Break cover, break down, break ground, break the ice, break a lance, break upon the wheel, break with, breaking-in, and breakneck. The additional fulness of Stormonth's book will be seen at a glance by our adding the derivatives supplied in the latter, in excess of those already quoted. These are some of them: Breaking, broke, broken, to break up, to break forth, to break in, to break from, to break upon, to break through, to break off, to break loose, to break out, a break-up, to break the heart, break of day, and breakfasting—all of which are fully defined, and the hyphen, where necessary, properly supplied. The matter of supplying the hyphen is, we notice, carelessly attended to in the new "Chambers;" and to proof-readers, and accurate writers for the press, this grave omission will greatly detract from the value which they would otherwise place upon the work. The following, which we alight upon at random, will illustrate this: By-law, by-name, and by-word, though appearing in former editions as we here give them, are all in the new book shorn of the hyphen. In the case of other words, the present edition is an improvement: Gunboat, for instance, which in previous issues appears with the hyphen, is now correctly given without it. Under the word "sea," however, there is evidence of the same carelessness we have referred

to, the following being written incorrectly without the hyphen—a departure from the mode adopted in the older editions: Seemark, sea-piece, sea-horse, sea-room, sea-salt, sea-shore, and sea-sick. That it is not intended to do away with the hyphen entirely, its proper introduction into the words sea-anemone, sea-going, sea-level, and sea-serpent, attests. With like carelessness we have watercourse, watermark, watermill, waterished, waterwheel, and waterwork—all

without the hyphen, though *with it* we have water-carriage, water-colour, water-level, water-logged, water-parting, and water-power. We have also the introduction of the hyphen in the word "wellbeing," where usage now leaves it out. Notwithstanding these errors, the new edition of "Chambers" is a most serviceable and in many respects admirable hand-book of reference, which we have much pleasure in heartily recommending.

EDITORIAL NOTES.

PROFESSIONAL WORKS OF REFERENCE.

IF the rate of literary productiveness continues, in the department of works of reference and useful research, we shall soon see the pavement completely laid over that "royal road to learning" which we have been repeatedly assured had no existence, and which all of us, at one period or another, are anxious to traverse. The wheels of life in these modern times run so fast, and the range and complexity of thought are nowadays so great, that few have the time to take up at first hand the studies in which most of us would like to perfect ourselves. Hence, no doubt, the demand for cyclopædias, compends, and the mass of handbooks, manuals, and works of reference which almost inundate us with the stream which unceasingly rolls from the press. Recognizing the uses of this literature, we have thought that we might do some service to the readers of THE MONTHLY by giving from time to time an abstract of such issues among works of consultation and reference as may be considered essential additions to the school library or to that of the teacher and student of our language and literature. The service we desire to render will be of greater moment if, in bringing to the notice of the young teacher especially those aids in his professional work

which he will find it advantageous to invest in, we at the same time encourage the habit of consulting authorities, and of inciting both teacher and pupil to become greater students of books. For a little money, it will surprise most people to note how much can nowadays be obtained in the way of books of reference which are almost indispensable to one's library. For thirty cents the invaluable work of Archbishop Trench, "On the Study of Words," can now be purchased. Forty cents will buy McCarthy's exceedingly interesting "History of Our Own Times." For a fourth of the latter sum the English Literature student can obtain each volume of Mr. Morley's "English Men of Letters;" while double the amount will make one the possessor of Mackenzie's "The Nineteenth Century," or the Essays of Macaulay or Carlyle; and a dollar will supply more solid reading than even a bookworm can digest in six months. For the like amount one can acquire the new revised and largely improved Chambers' Etymological Dictionary, which we elsewhere review in the present number of THE MONTHLY; and for a trifle more Brewer's "Dictionary of Phrase and Fable" can be permanently domiciled in the household. So rich and varied are the stores of information one can gather for a little money, that ignorance is now more than ever unpardonable. We wish it were possible to incite

trustees of schools to devote, say, even twenty dollars annually to furnish a reference library in every school section, or that some public-spirited townsman in each locality could be induced to place this amount at the disposal of the teacher for so useful a purpose. But little should hinder the latter from doing what he himself can in providing for his own use the indispensable tools of his profession. He may not personally be able to purchase, say, the new (ninth) edition of the "Encyclopædia Britannica," now in course of publication, though it would be treasure well worth laying up where thieves (*i. e.* book-borrowers) may not break through and steal; but it should not be beyond the effort of the teachers of a township or county to acquire that priceless work and to place it in the library of some central school-house, or in the custody of the County Inspector, where all may turn to it for information on almost every topic of interest to educated men, or for the last word on one's special department of reading from the highest authority. Yet, if so extensive a purchase as this is not practicable, or if the sense of individual possession is so strong that few would care to "take stock" in the proprietary of a work to be used *pro bono publico*, there is no lack of other investments which the teacher at a moderate outlay can make, and at the same time felicitate himself upon the fact that the acquirement is all his own. To take up one department merely of literary activity, which recent years have enriched beyond adequate estimate, let the teacher of English look up the issues under Linguistic Science and note the field he has there, at a moderate outlay, for profitable investment. To confine himself even to his own mother tongue, he has material enough in its literature for the study of a lifetime. And what subject could be more attractive, or would better fit him to be an instructor of youth, than the critical study of his own language? At first, of course, there would be some dry work in mastering the leading principles of the Science of Language; but with the aid of a Max Muller, or a Farrar, he would soon find this far from uninteresting, if not positively attractive and

inviting. Nor must the sneer that excessive devotion to philological research leads to verbal quibbling, and to much weariness of the flesh, dissuade the student from the critical investigation we would urge his entering upon. Jacob Grimm's remark should be borne in mind, that "the English language possesses a veritable power of expression such as never stood at the command of any other language of man;" and while he makes use of this instrument of daily speech, it should be the teacher's duty and his privilege, as far as opportunity permits, to perfect himself in it. In mere lexicography he may not at first find more than what the old writer found in the cookery books of a past generation, viz., "a deal of fine confused feeding;" but he will gain much in the mere enlargement of his vocabulary, and in acquiring the art of effectively using the tools of instruction, and of understanding how and whence they have come into the language we write and speak.

As an aid of the highest character to the scientific study of English Etymology, the student of the language will find no work so valuable as the new "Etymological Dictionary" of Prof. Skeat, of Cambridge. In our last number we made the announcement that a cheap popular edition of the work, which has just been completed, had appeared. This is now before us, and as a work of reference on the history of the language, and an exhaustive treatise on the derivation of the words composing our English tongue, there is no book we should with more insistence urge teachers to supply themselves with than this erudite lexicon of Prof. Skeat. With the modesty of a true scholar its author offers his work as a preliminary and provisional text-book in a field which the great work projected by the English Philological Society may be expected more amply and authoritatively to occupy. But his work, we feel confident, will serve more than a tentative purpose, for its author has a world-wide reputation as a Comparative Philologist, and his lexicon is the fruit of so many years of learned and laborious toil that neither is likely to be seriously displaced by projects that may subsequently appear of a more

ambitious character. However this may be, the present value of Prof. Skeat's work can scarcely be over-estimated, for it brings before the student a greater store of learning in regard to the origin, history, and development of the language than is anywhere else accessible, and that at a price which has an infinitesimal relation to the years of labour spent upon it. The work, we should advise our readers, is not a pronouncing or even a defining lexicon, save, in regard to the latter, as it is necessary to identify the word and to show its parts of speech. The dictionary is essentially an Etymological one, and, though mainly illustrative of the English language, yet the author, by pursuing the comparative method of inquiry and exhibiting the relation of English to cognate tongues, has thrown a flood of light upon Latin and Greek, as well as upon the more important related words in the various Scandinavian and Teutonic languages. The author's explanations of the difficulties he met with in the investigation of his subject will be interesting to many students of the lexicon. The most of these seem to have arisen from what Prof. Skeat speaks of as the outrageous carelessness of early writers in spelling Anglo-Saxon, and from the fancifulness and guess-work of modern sciolists in attempting to trace the origin and derivation of words. The disregard of the vowel sounds and the principles of phonetics, it is shown, have been a fruitful cause of these blunders on the part of pre-scientific Etymologists. Prof. Skeat's scholarship and his marvellous industry save him, of course, from the mistakes which these lexicographers fell into; and no feature will be more marked in a study of this author's lexicon than the pains he has taken to verify his quotations and to test accuracy whenever he cites old forms or foreign words from which any English word is derived or with which it is connected. The labour he has given to this hunting up and verifying the earliest form and use, in chronological periods, of every word under review in the volume, will strike every one who examines it; and the work should therefore prove a helpful and interesting study to every enthusiastic student of the

language. Besides the contents of the lexicon proper, the compiler has added many appendices of great value, such as those that contain lists of Aryan roots, of sound-shiftings, of homonyms, of doublets, prefixes, suffixes, etc. But we cannot at present take up more space with an account of this exceedingly valuable work of Prof. Skeat, or deal further with those recent works of reference we have in mind to bring to the notice of Canadian teachers. We hope, however, to return to the subject in an early issue, and trust that our doing so may prove of profit to some of the readers of THE MONTHLY.

DEPARTMENTAL RECOGNITION OF PRIVATE SCHOOLS.

THE Minister of Education, we learn, has lately taken a step which, whether he sees it or not, is likely to open up the discussion of a large and weighty question, viz.: the consideration of how far State Education is a help or a hindrance in the general enlightenment of the people. We are told that Mr. Crooks has given to a purely denominational school the right to hold Entrance and Intermediate Examinations, and further, that in granting the privilege to the private institution referred to, he is reported to have favourably compared it with the best of our High Schools and Collegiate Institutes. Now, it will be admitted, that we have time and again freely criticized the actions of Mr. Crooks in the exercise of his official duties as Minister of Education, and we are bound to say that we have as often unrestrainedly spoken our mind. But in the matter we have just referred to, we confess, that though at first blush the Minister seemed to us to have been guilty of an act of disloyalty to the school system of the Province, and to have placed in jeopardy the whole machinery of Departmental instruction, we subsequently failed to discover that he had committed any serious indiscretion, or had rendered himself liable to impeachment. The gravest part of the charge against the Minister, we will at once say, is his impolitic, unkind, and as we believe untrue, comparison of the school in

question with the best of the Institutes. The statement he is understood to have made is wide of the mark, and, in our judgment, the compliment was by no means merited. Comparisons, he ought to have remembered (in the language of the copy-book), are odious; and though he may have private reasons, and possibly political ones, for saying sweet things of a denominational seminary, and for straining courtesy to flatter its managers, his Ministerial office required of him to abstain from exaggeration. But having said this, we have emptied the quiver of criticism. On the other hand, there is much in favour of the Minister's action. As the head of our educational system, it is his duty to take cognizance of all the machinery of school instruction. Whatever it denotes, there is no denying the fact, that there is both growth and activity among denominational schools. Their promoters, no doubt, dislike the idea of dependence upon a central department, and prefer the life and movement of a non-official system. And we feel sure they are right. The official system too often blocks the way to progress and to intellectual freedom, and reduces our educational methods, more than one cares generally to acknowledge, to the level of commonplace and stupidity. As some one has said, the State rules a great copy-book, and the nation simply copies what it finds between the lines. "If you desire progress," says Mr. Herbert Spencer, "you must not make it difficult for men to think and act differently; you must not dull their senses with routine, or stamp their imagination with the official pattern of some great department." This, unfortunately, is but too much the result of State systems of education. Under the circumstances, we are therefore disposed to give a

heartly countenance to individual or to local corporate effort in behalf of education. If without the aid of the State this private effort is to be a menace to our State-supported schools, and to place them at a disadvantage in regard to efficiency and the results of their work, it will be a serious reflection upon our official systems. But this danger is not yet apparent, and local sensitiveness need scarcely take alarm. The matter, however, must be looked at broadly, and not merely from a local point of view. It is in the interest of the general intelligence that *all* the machinery of education, whether endowed or not, should be put in motion, and, indeed, be in full blast. And it is the Minister's duty to give countenance and recognition to it all, and to require private schools, if their managers will consent to it, to come up to a given standard, and if possible, as in England, to submit to inspection. If they voluntarily acquiesce in this, so much the better; though, as far as inspection goes, we can scarcely say that they will receive much benefit. Let them, however, beware of uniformity, and reflect upon its evils in the official system. Above all, we would caution them to rely with an abiding faith upon their voluntary system, and to set no longing eye on Government grants. Let them keep, moreover, on the weather side of "payment by results," for they will sacrifice much, and vulgarize their conceptions of education, if they accept this and the Departmental regulations and examinations which accompany it. The private schools of the country are no doubt here and there doing good work; but if they value their freedom in doing it, they will accept Mr. Crooks's blandishments but reject his official moulds and spurn departmental control.

UNIVERSITY OF TORONTO.

RESULT OF THE ARTS EXAMINATIONS.

B. A. GRADUATES.

A. F. Ames, Cainville; J. Baird, Scarborough; A. Blair, Ratho; W. H. Blake, Toronto; C. J. Campbell, Toronto; J. Caven, Toronto; J. M. Clark, St. Mary's; L. J. Clarke, Winnipeg; L. C. Corbett, Corbett; W. F. W. Creelman, Collingwood; W. A. Duncan, Russell; H. L. Dunn, Welland; J. C. Elliot, Port Robinson; W. Elliot, Morewood; W. T. Evans, Waterdown; D. Fasken, Elora; W. O. Galloway, Toronto; C. T. Glass, London; E. G. Graham, Brampton; J. Gray, Woodburn; A. H. Gross, Whitby; W. J. Greig, Oshawa; J. F. Grierson, Oshawa; E. F. Gunther, Toronto; R. Haddow, Dalhousie, N.B.; T. P. Hall, Hornby; J. Hamilton, Motherwell; T. Hepburn, —; J. A. Jaffray, Macville; D. B. Kerr, Toronto; G. G. S. Lindsay, Toronto; W. J. Logic, London; S. Love, Toronto; G. S. Macdonald, Cornwall; J. McGillivray, Collingwood; A. MacMurchy, Toronto; C. A. Mayberry, Salford; C. J. McCabe, —; A. McDonald, Toronto; A. H. McDougall, Cannington; D. McGillivray, Goderich; R. McKnight, —; H. W. Mickle, Toronto; R. Moir, Hensall; J. W. Mustard, Uxbridge; A. E. O'Meara, Port Hope; S. E. Robertson, Harriston; W. L. H. Rowand, Walkerton; O. L. Schmidt, Sebringville; A. Y. Scott, Stratford; T. W. Simpson, Orangeville; G. A. Smith, Winthrop; J. Smith, —; J. C. Smith, Galt; T. Trotter, Woodstock; F. C. Wade, Owen Sound; A. Watson, —; G. B. Wiltsie, Farmersville; D. J. G. Wishart, Madoc; H. Wissler, Salem; H. J. Wright, Toronto.

MEDALLISTS.

Classics—Gold, D. McGillivray, Goderich; Silver, H. L. Dunn, Welland. Mathematics—Gold, J. M. Clark, St. Mary's; Silver,

A. F. Ames, Cainville. Moderns—Gold, H. J. Wright, Toronto; Silver, E. F. Gunther, Toronto. Natural Sciences—Gold, G. A. Smith, Winthrop; Silver, T. P. Hall, Hornby. Mental and Moral Science, Logic and Civil Polity—Gold, W. F. W. Creelman, Collingwood; Silver, W. H. Blake, Toronto.

SCHOLARSHIPS.

First Year.—Classics—1, H. Haviland; 2, Logan and Ross, equal. Mathematics—1, R. A. Thompson, Granton; 2, A. C. McKay, Yorkville. Moderns—F. H. Sykes, Toronto. General Proficiency—1, H. J. Hamilton, Collingwood; 2, G. Hunter, Brantford.

Second Year.—Classics—1, W. J. Twohey; 2, R. A. Little, Ratho. Mathematics—1, J. Cuthbert, Ingersoll; 2, M. Haight, Pine Orchard. Moderns—1, W. H. Smith, Toronto. Natural Science—1, W. I. Bradley, Ottawa. Mental and Moral Science—G. Sale, Toronto. General Proficiency—1, T. C. Robinette, Toronto; 2, W. G. Milligan, Toronto. Lorne Silver Medal—R. A. Little, Ratho.

Third Year.—Classics—1, J. C. Robertson, Goderich; 2, A. Crichton, St. Catharines, and H. R. Fairclough, Hamilton, equals. Mathematics—1, G. Ross, Hamilton; 2, J. G. Campbell, North Branch, Mich. Moderns—1, J. Squair, Orono. Natural Science—D. O. Cameron, Lucknow. Mental and Moral Science—1, J. S. Campbell, St. Catharines. Blake Scholarship—W. S. Ormiston, Whitby.

PRIZES.

French Prose—J. Squair. German Prose—J. Squair. Oriental Languages—First year—G. Sale; second year, J. R. Stillwell; third year, J. A. Jaffray; fourth year, J. Hamilton.